THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—LIEBIG.

Vol. XI.—No. 1.] 8th mo. (August) 15th, 1846. [Whole No. 139.

PUBLISHED MONTHLY,

BY JOSIAH TATUM,

EDITOR AND PROPRIETOR,

No. 50 North Fourth Street,

PHILADELPHIA.

Price one dollar per year.—For conditions see last page

Premium Farm in New York.

THE State Agricultural Society of New York offered for the year 1845, a premium of $50 "for the best cultivated farm of not less than fifty acres, exclusive of woodland and waste land, regard being had to the quantity and quality of produce, the manure and expense of cultivation, and the actual profits;" as well as premiums of smaller amounts for farms of second and third grade. Reports are published in the Society's Transactions of last year, and are highly valuable for their practical details. Not having that volume before us we copy the statement of George Geddes—to whom was awarded the first premium—from the Cultivator. Various questions were proposed by the Society, which were to be carefully answered by competitors: and we think the following paper will be read with great interest by our practical men who hold the plough, and will understand at a glance, every statement and mode of operation.—ED.

1. MY home farm consists of three hundred acres. Thirty are in wood. About ten acres of the side hills are unsuitable for ploughing, and are only used for pasture; the remainder is under cultivation, except what is required for roads, yards, &c.

2. The soil is principally a disintegrated gypseous shale, it being the first stratum below the Onandaga lime, running up to and taking in some sixteen acres of the lime, which is covered with about one foot of soil. This is in the wood lot, and furnishes quarries of good stone. There were formerly a few cobble stones on the surface, and one very large granite boulder. A small brook running through the farm is bordered by about forty acres of soil that has been deposited by the brook, and is not suited to the production of wheat. In the valley of the brook is found marl and peat, and at the springs that come from the hill sides, calcareous tufa.

3. I consider the best modes of improving the soil of my farm to be deep ploughing, application of barn-yard manure, free use of sulphate of lime, and frequent ploughing in crops of clover.

4. Unless I am ploughing in manure, I plough from six to eight inches deep. Deep ploughing upon the gypseous shales, never fails to increase fertility. Full trials justify my speaking with confidence on this point.

5. I have not used the subsoil plough, as I have no retentive subsoil on my farm.

6. I apply my barn-yard manure in large quantities at a time, preferring to at once do all for a field that I can in this way. About fifty loads of thirty bushels each, of half-rotted manure to the acre at a dressing.

My stables are situated on two sides of a square; the manure, as it is taken from the stables, is at once piled in the centre of the yard, as high as a man can pitch it. Sulphate of lime is put on the manure in the stables, and the heap, as soon as fermentation commences, is whitened over with it. My sheep are all fed under cover, and most of their manure is piled under cover in the spring, and rotted. As to keeping manure under cover, my experience has led me to believe, that the best way is to pile it under cover—when it is most convenient to do so—and only then as I am compelled to apply water to the heap to rot it, unless it has received the snows and rains out doors. The coating of sulphate of lime, will, I believe, prevent loss of the gases, and in process of fermentation the heap will settle so close together, that water will not after that enter into it to any considerable depth, particularly if it was piled high and came up to a sharp point.

7. My means of collecting and making manure, are the straw, corn-stalks, and hay raised on the farm, fed to farm stock, and what is not eaten, trampled under foot, and converted as before described, so much of it as goes through the stables. But large quantities of straw never pass through the stables at all; stacks are built in the yards, and the straw is from time to time strewed over the ground, where it receives the snows and rains, and is trampled by the cattle. Embankments around the lower sides of the yard, prevent the water from running off, and confine it in water tight pools, which are filled with straw to absorb the water, except so much of it as is wanted to put on the garden.

8. I make from four to five hundred loads of manure annually, and it is all applied.

9. Most of the manure is put on corn ground. It is drawn on about one-half rotted, and spread over the surface, and ploughed under about four inches deep. The reason I do not plough it under deeper is, that I suppose I must plough deeper the next time to bring up the earth into which the manure has been carried by the rains.

10. I have never used lime in any quantity, excepting in the form of a sulphate as a manure, believing that there is enough in the soil. Sulphate of lime, I use in large quantities; fourteen tons this year. It is sown on all the wheat, corn, barley, and oats, and on the pastures and meadows in quantities varying from one to three bushels to the acre. All the ashes made by my fires is used as a manure, and I think that it is worth as much as the same bulk of sulphate of lime to use on corn. Sulphate of lime has been used on the farm for many years, and in large quantities, and I think it essential in my system of farming. I have not used salt or guano as manure. I raised this year about

77	acres wheat,	yield'g	1,616	bu., averaging pr. a.	20.99
15¼	" corn,	"	821	"	52.96
18	" barley,	"	665	"	36.94
38	" oats,	"	2,249	"	56.55
2¼	" potatoes,	"	292	"	116.89
			5,643		

50 acres of pasture and 30 of meadow.

12. I sow at the rate of two bushels to the acre, about the 15th day of September. I summer fallow but little, and only to kill foul stuff, and to bring the land into a good state of cultivation. A part of my wheat is sown on land that has been pastured, or mowed, ploughing it but once, but that done with great care, and as deep as I can. The oat and barley stubble, as a general rule, is sown to wheat, ploughing only once, having previously fed off the stubble with sheep so close as to have most of the scattered grain picked up. The ploughing is done as near the time of sowing the wheat as is practicable, and the wheat is sown upon the fresh furrows and harrowed in. I have tried various modes of treating stubble, but none of them has answered as well as this. What little grain of the spring crop is left on the ground is turned deep under, and the wheat being on top gets the start of it. The harvesting is done with a cradle. Corn is generally planted by the 10th day of May, on sod land; most of the manure is put upon this crop. The corn is planted in hills three feet apart each way; from four to six kernels in a hill, and no thinning out is practised. Sulphate of lime, or ashes, is put on the corn as soon as it comes up. Two effectual hoeings are given to it, and a cultivator with *steel* teeth, is run twice each way of the field between the rows, to prepare it for the hoe. Corn ploughs and cast iron cultivator teeth are entirely discarded.

At the proper time the stalks are cut up at the surface of the ground and put into small stooks, and when the corn is husked, the stalks are drawn at once into the barn, without being again set up. In this way they are kept in good condition, and labour saved.

Oats or barley is sown the next spring on this corn stubble. Of each of these grains three bushels of seed is put upon an acre. As soon as the grain is up, sulphate of lime is sown. These grains are also sowed on sod land. The reason of this is, I cannot command the manual labour necessary to cultivate *one-fifth* of my land in corn, and secure it at the proper season. The rotation of crops I attempt to pursue, is—first,

corn; second, oats or barley; third, wheat on the oat or barley stubble; fourth, clover and herds grass pasture—the seed sown on the wheat—fifth, meadow. But inasmuch as certain portions of my farm are not suited to raising wheat, and as I cannot command the force necessary to cultivate the proportion of corn, I am compelled to modify; but I come as near to this rotation as I can.

The usual time of sowing barley is as soon as the ground is settled—commonly by the 20th of April. The oats are sowed later, generally early in May.

The yield of the crops for this year has already been given, and I think I am safe in saying, that the average of one year with another, upon the system of rotation before given, comes up to that of this year. The pasture will sustain two cows upon an acre, and the hay will generally yield two tons to the acre.

13. This interrogatory has been so far anticipated, that it is only necessary to add, that sometimes manure that is not convenient to draw in the spring, is put upon the corn stubble and upon wheat.

14. This interrogatory has been anticipated, in part. My reasons for applying my manure to corn, are, that I have better means of destroying the seeds of weeds, and from the belief that corn is the best crop to take up that part of the manure that the first crop can use, and that the manure is thus prepared for the crops that follow. Experiments that I have made, go to show that coarse manure benefits the second crop as much as it does the first—and the third crop cannot but receive great benefit from it. The fourth and fifth crops probably do not impoverish the soil. By this rotation, three crops are had for three ploughings; and my experience proves that the soil increases in fertility under this management.

15. Potatoes. In consequence of the disease that has injured this crop, there were but two and a half acres planted this year; the disease was very destructive to my crop last year, but thus far nothing has been discovered of it this year. I have not been able to discover either the cause or remedy for this disease.

16. Herds grass, at the rate of eight quarts to the acre, is sown on bottom land. Clover and herds grass, mixed in equal quantities, is sown on uplands, at the rate of eight quarts to the acre, commonly. Generally sow herds grass in September, when it is sown alone on wheat; but if mixed with clover, sow it in March, on a light snow, if possible; the sowing is done by hand. The last spring I sowed herds grass seed at the rate of eight quarts to the acre, on a field of wheat that I wanted to mow. Sixteen quarts of clover seed were mixed with the other seed and sown on fifteen and a half acres. In the fall this field was not fed off until the clover headed out, when it appeared finely covered with clover.

17. I usually mow about thirty acres, and expect two tons to the acre. This year the herds grass was killed by a frost late in May, and the estimate made was one ton to the acre. I use the variety of clover known as the "medium," and cut it when one-half of the heads are turned. At this stage a very considerable proportion of the herds grass will be sufficiently advanced for the seeds to mature. The mode of making the hay, is to move it as little as possible. Generally it is put into cock. When the bottom lands are stocked down, clear herds grass used.

18. There is no part of my farm that cannot be ploughed, except the side hills before mentioned. These side hills are in grass and are pastured.

19. I have irrigated a part of my bottom lands. For a few years the grass was very much increased in quantity; but the herds grass disappeared, and a kind of grass took its place of but little value. I now suppose that the water was suffered to remain too long on the meadow, and thus destroyed the valuable grasses. This meadow has been ploughed up, with a view to subdue it, and again seeded with herds grass; when it is to be hoped a second experiment in irrigation may be made with more skill and better success.

The mode of watering the meadow was by a small ditch taken out of the brook, at a point high enough to enable me to convey the water through the middle of the meadow. Lateral cuts from this main ditch, with gates, distributed the water.

20. Of the bottom lands mentioned, about twenty acres were very wet, and may have come under the denomination of "low peat lands." This land has been thoroughly drained, with ditches from three to five feet deep. Very heavy oats were this year raised upon some of this land, and about one-half of my corn was upon this description of land. The next year the whole forty acres are to be planted or sown to oats.

21. There have been four oxen, seventeen cows, and sixteen head of store cattle, eighty sheep, eleven horses, and thirty-three swine kept on the farm the past season, with the exception of a short time. The cattle are either thorough bred, or high grade Short-horns.

22. I have made no accurate and careful

experiments to test the comparative value of different breeds of cattle.

23. No account is kept of the butter and cheese made on the farm, as it is mostly consumed on the premises.

24. There have been but eighty sheep kept on the farm the past season. My flock has recently been very much reduced, with a view to substitute pure Merinoes. My sheep yielded a little over four pounds of wool each, for the whole flock. The pure Merinoe ewes each raised a lamb, and they averaged a little over five pounds to the fleece. I think that about ninety lambs may be expected to be raised from one hundred ewes. I have heretofore raised mutton sheep, but have disposed of all my sheep whose chief value was for mutton, and intend to turn my attention to the raising of wool, as the first consideration. Two dollars have been about the average price I have received for mutton sheep fattened on grass.

25. There have been thirty-three swine, of grade Berkshire, kept on the farm this year. About one-half of them have been slaughtered. Our hogs weigh from two hundred and fifty to five hundred, averaging over three hundred and fifty, when dressed.

26. No accurate experiments have been made by me, to test the value of roots as compared with Indian corn. I fattened my hogs and cattle on corn ground with the cob. Cooked for hogs, and sometimes cooked and sometimes raw for cattle, being governed in this particular by the amount of grain I am feeding. I think corn the most economical grain I can raise to feed, in view of the prices coarse grains usually bring in market.

27. There are about two hundred apple trees on the farm, most of them grafted—spitzenbergs, russets, pippins, &c.,—most of the approved varieties.

28. Pears, peaches, plums, cherries, quinces, &c., are raised in abundance for our own consumption; and we have many of the best varieties of these fruits; five or six of pears, twenty of peaches, seven or eight of cherries, and four or five of plums.

29. Various insects common to this country have depredated upon the fruit trees; the most troublesome of all, is the common apple tree worm Strong soap-suds applied by means of a piece of sheep skin with the wool on, attached to a pole, is the most effectual means of destroying them.

30. My general management of fruit trees is, to prune them annually, keep them free from insects, and see personally to the selection of scions for grafting.

31. I have applied leached ashes to wheat, grass, and corn land, without being able to see any benefit.

32. Besides the mansion house, I have four houses occupied by men that work on the farm. Two of these houses have barns connected with them. In a central position is a grain barn, fifty-four feet long and forty wide, twenty feet high, with a stone wall under it—making a granary and sheds. Near the mansion house are the hay barn, sheep barn, and a grain barn fifty-four feet long by thirty-four wide. Basement stories to all these buildings, furnish sheds and stables for the stock; so that every animal I winter, is fed all the valuable food in a rack or manger, and under cover.

Besides these buildings, is the wagon-house, forty-two feet long, with a basement under it; and the tool-house, carriage-house, corn-house, milk-house, smoke-house, ice-house, hen-house, &c. A small mill upon the brook grinds my coarse feed. My yards around the buildings near the mansion, are all supplied with water in tubs, sent there by a powerful force pump under the mill, driven by the same wheel that grinds the feed and saws the wood.

33. The common fence on the farm is posts and boards, the posts set three feet or more in the ground. Of red cedar posts I have about three miles—and of other timber for posts, about two miles. I have something more than a mile of stone wall, made from stone quarried from the quarries mentioned. These walls are built four feet ten inches high, two and a half feet thick on the ground, and eight inches thick on top, having the same slant on both sides, and laid straight and strong. This fence costs me $1 50 a rod, and I build fifty rods or more every year, upon a system of fencing that in time will put an end to further expense. The board fence costs 88 to 100 cents a rod. There is a considerable portion of my fences of rails, mostly cedar, but no new rails are made. As to the condition of my fences, I would respectfully refer to the report of the committee on farms for this year, for the county of Onondaga, a copy of which report is attached.

34. Most of my fields have been measured, but sometimes more than one kind of grain is raised in a field—and thus the amount of ground covered by each kind of grain is not always accurately known. All the grain raised on the farm is measured, and the measurements entered in books kept for that purpose, by proper men. The work hired by the day is entered in these books, and any other thing that appears of sufficient importance.

These memorandum books furnish most of the materials for a farm book which is kept by myself.

From the farm book, it appears there have been nine hundred and twenty-seven days work done on the farm, from the 1st day of April to the 1st day of November. This account covers all the work done in drawing plaster, sowing it, drawing out manure, threshing and delivering so much of the grain in market as has been sold, and all other men's labour on the farm. There have been produced on the farm five thousand six hundred and forty-three bushels of grain, aside from garden vegetables. Besides this, sixty-six loads of hay.

As the grain is sold, entries are made in the farm book, of the price it brings; and that part of the products of the farm that is kept for home consumption, is estimated at the price it is worth in market. Thus arrived at, the grain and hay raised this year was worth three thousand five hundred and twenty-three dollars and seventy-nine cents.

I have no means of determining the value of the pasture, fruit, and many other things produced on the farm, nor the cost of team work.

GEO. GEDDES.

Fair Mount, Onandaga Co.,
N. Y., Dec. 31st, 1845.

For the Farmers' Cabinet.

Manures for Grape-vines and Fruit Trees.

MR. EDITOR,—A few words if you please on this subject. I am very much disposed to be economical in the use of whatever means I employ for the advancement of wealth and comfort. I dislike, particularly, to see our farmers and horticulturists purchase high-priced and scarce fertilizers, when by using materials which are lying about them, and sometimes going to waste, they might save the cost of their manures, while their crops might not be diminished. This fault, as I consider it, is particularly chargeable upon what are called "book-farmers," or those who read agricultural publications. Many of them commence farming with abundant resources, and by throwing away their money for costly fertilizers, and neglecting the means they have on hand, which would cost them comparatively nothing, they waste their capital, get into debt, and finally are obliged to give up farming with injury to themselves, and disgrace to scientific agriculture. This should not be. Many farmers have mines of wealth upon their plantations which they never take pains to develope, and, indeed, which they often consider a nuisance.

But to our subject. Grape-vines and fruit trees do not need stable manure, nor any other manure prepared by animals. The best manures for them, are such as have no more nitrogen than is contained in common vegetable matter. Therefore nothing is better for them than plain rotten wood, hay, saw-dust, leaves, chips, shavings, straw, or swamp muck. These, together with lime and ashes—even leached ashes, and anthracite and bituminous coal ashes—will make vines and fruit trees grow large, healthy, and highly productive. These manures cost little, can be had almost anywhere, and may be applied at any time.

Those living in the neighbourhood of a saw-mill, have a fine opportunity of getting a cheap and highly useful article. The saw-dust of hard woods, particularly oak and hickory, is the very best manure for grape-vines and fruit trees that can be obtained. Scattered over the surface of the ground under the vine or tree, with a due proportion of alkaline substances, it has a most charming effect upon the productiveness of it.

A swamp hole upon a farm might be made almost as valuable as a gold mine. The mud taken out in the fall, and compost made of it with lime, ashes, finely powdered charcoal and plaster, and let lie till spring, with an occasional turning over during the winter, will make a manure cheaper and better than nitrate of potash and many other costly fertilizers. Dug or ploughed in among the roots of vines and fruit trees, or even scattered over the surface and under the plants, it would have a very beneficial effect upon the prospects of the fruit raiser. When these cannot be obtained, rotten straw, hay, chips, shavings, or leaves, are better than more costly substances.

Therefore, when farmers or horticulturists have a swamp, whence they may procure swamp muck, or live near a saw-mill where they can obtain the saw-dust, and neglect to use these articles, but instead of this, send hundreds of miles for guano, nitrate of potash, silicate of potash, and other costly materials, we should not at all be astonished at numerous failures among them, and the poverty which annoys and hampers them at every turn. If they alone were the losers, I should not so much complain, for I should consider their suffering and loss as a punishment for their folly; but they retard the course of scientific agriculture, and by that means check the progress of mankind in knowledge and happiness.

Excuse this complaining, Mr. Editor, as it is designed for good, and for that only.

CHEMICO.

Wilkesbarre, Pa., July 23rd, 1846.

For the Farmers' Cabinet.

Improvident Society.

Mr. Editor,—I forward you the following, trusting it may stir up to a little reflection, some who are not much given to efforts of this character. If it should enable any of your readers to see themselves as in a glass, I shall not regret having sent it.

Y.

A portion of a discourse delivered before the Society for "the promotion of agricultural improvidence," of Poor County, by A. Poorhouse, Esq.

Friends and fellow citizens, also ladies and gentlemen:

I am happy to see before me to-day, so large and intelligent an assemblage, interested as they are, and zealous as I have long known them to be, in the great cause we have undertaken. It needs not my assurance to make known to you how modest I feel on this occasion. You have so long known me that it needs not that I should tell you this, but my evident embarrassment will declare it; indeed my modesty you all know perfectly well, far exceeds my talents or my powers of interesting you. Why I have been selected for this remarkable occasion I cannot imagine. Nearly all of you have known me from childhood, and not one of you, I can with entire truth and perfect fearlessness assert, will contradict me when I say, that a more simple and ignorant person does not exist—one less likely to be of use to his fellow citizens—one less qualified to instruct them in a single thing worth knowing—one more profoundly unacquainted with all the trumpery, science and knowledge of the day—one who feels himself, however, above the meanness so frequently practiced by those whom I see some disposed to respect, of gaining from men or books the knowledge which it has not pleased Heaven to implant in their minds by instinct and nature. Yet with these humble pretensions I have been selected to address you on this interesting occasion. Of one thing I am certain,—and so are you,—that you will have what some of those who are fond of fine language, call the virgin history of my mind. You will have displayed before you, I am proud to say, an intellect totally unembarrassed by the thoughts of others—one that has never foolishly, I may say, impiously, endeavoured to injure by thought or study, the powers Providence gave him. One which, now, after forty years observation, is as clear of all information as it was at five years of age—one that through all my life has continued to cherish and preserve its early love of doing nothing, and all the torpor, dullness, and indifference that nature gave it. Of these things I can boast, and it is all that I have to be proud of; and to the results and products of an intellect so trained, you are perfectly welcome. May you gain as much by it as I have done. You will not be astonished when I tell you, that for years I have not opened a book—the last I read was Webster's spelling book, but I found so many things in it that I was expected to remember that I thrust it aside. A flogging that I received from that silly old pedagogue, the late Stephen Slapbotham, disgusted me, and I determined from that moment to let my mind take its own course. And I assure you that nothing has given me greater pleasure, than by my own experience to refute the ridiculous idea that some foolish persons have attempted to put about, that activity of mind, and what they call industry, are necessary for one's happiness. It is no such thing—the greatest, fullest source of enjoyment in this world, is to do nothing, and do it well. Of this doctrine we are all examples, and to its truth and beauty we can all bear testimony. Continue, my friends, to act upon it; you will find yourselves much the better for it in the end. If any of you should be so unfortunate as to be encumbered with property, you will in this way certainly rid yourself of it. And you may then move about without anxiety, independent as a bird or a fish, without the perplexity or cares of a home—without the vexation of a wife or a child. Happy condition! who does not look forward to it with hope and happy expectation. Once rid of your money, and you have gained a great object. Have we not high authority for calling it the root of all evil? Should it not then be our aim to waste it as soon as possible? Besides, why should we be ashamed of begging, or of the poor-house? If the large number of our fellow citizens are disposed to labour and support us, why not allow them the privilege?

Every encouragement is given to us to live upon the public. In Philadelphia they have a palace, where two thousand and more of those who advocate our principles can pass their lives without care or thought. Men from all parts of our happy country are there. Many from parts of it with which I was not acquainted, and speaking a language I did not altogether understand—from Ulster, Munster, Connaught, Tyrone, all our free and enlightened fellow citizens. My heart leapt within me at such a noble sight, and at such a strong evidence in favour of our ideas. I asked myself why not multiply these institutions, why not scatter

them over the land, instead of urging men to labour and waste their strength by toil?

With these few general remarks I will now proceed to the subject more particularly before us. You have all, probably, been pestered as I have been, with instructions from ignorant people as to how our land should be managed. You have probably had the Cultivator, the American Farmer, or the more distant Farmers' Cabinet, recommended to you by some of those envious and jealous persons, who saw how quietly you took life, and how little you troubled yourselves with its concerns or your own; and who hated you for your content, and for being master of your own time, and understanding how to make use of it. These persons for reasons best known to themselves, no doubt selfish ones, recommend you to take these periodicals. What is there in them of any value to you? You have placed before you examples of what they call industry,—that is, of men who make themselves miserable with anxiety and toil; of men who strive to get a few more dollars than nature intended they should, by what they call improving their land, and raising a little more wheat, or corn, or potatoes. We stand on an eminence so lofty, as to look down on these struggles to gain a few cents. Our aim is ease, quiet—to do nothing, and to let things take care of themselves. Ignorance to us is bliss, then why should we interest ourselves in matters that disturb us, that oblige us to be active and anxious; and which might very probably put on us the cares of wealth. Why should we allow ourselves to be controlled by those sordid feelings that put in motion and govern so many people? No, let there be some high minded and generous enough to look with contempt on what weak and foolish people call industry. How did Adam improve his land, or Noah, or Methuselah, or any of the ancient Christians or pagan philosophers? Farmers' Cabinet's, Cultivator's, and other expensive publications did not exist in those days. Men were not told to their face, by impertinent and intrusive neighbours, that their farms were going down, when they were only left to the kind and paternal care of nature. In those days they trusted more in Heaven than they do now. If they wanted water, they struck a rock; if they wanted something to eat, manna and locusts were found for them; and if they wanted clothes, they made sufficiently good ones from leaves of trees and skins of animals. Were they what we now call industrious? far from it; and there is no doubt we should be treated as they were, if we did not make our land unfit to bear manna or locusts, by constant manuring, and by other devices that designing men have put upon us. And we surely have trees enough to supply us with leaves, and dogs and cats enough for other garments. Even the hogs in the streets of our large towns, with whose skins they now cover trunks and saddles, would make strong and durable pantaloons. Nature then has provided us with everything; it is only our own perverseness that causes us to misuse and misapply our advantages.

But in this improving our land, do not we destroy many beautiful plants—is not the fragrant toad flax far handsomer than a potatoe—the daisy than a cabbage—and mullens and garlic, than onions or beans? No one will pretend to make a comparison; yet all these gladdening as they do, the eye of the lover of nature, we must eradicate, under this system of improvement, and turn our fields to mere grass or grain. In the neighbourhood of that pretty city, Philadelphia, there are many who act up to our ideas, and no doubt reap the full advantage of them. You may see there large fields set out with the daisy, and most tastefully interspersed with clover and grass, so as to give a pleasing appearance to the fields, far superior, in fact, to any grain, or to that coarse and vulgar plant, the potatoe. Then the labour and expense of this improving is very great; and if we were willing to go through the labour, which I am thankful we are not, where should most of us find the money? or if we had this, which, thanks to our own exertions, we have not, who would do the work? Those who advocate this wild and ridiculous system, insult you by telling you that you must take care of your manure, and make as much as you can. And then our system of managing our cattle, differs from that of those who indulge themselves in what is called improving their land. We do not confine our cattle to dirty barn-yards, to trudge all winter through wet dung, up to their knees, and nibbling a little dirty straw; but we let them roam about, and eat the rich, nutritious, dead grass, that lies either on the public road, or near our own fences. This certainly is a very superior system to that of enclosing the cattle.

In some of these agricultural periodicals against which I have warned you, you will find—I understand from others, for of course I never see them—recommendations as to the preserving what they call the juices or liquors of the manures, as if they were speaking of cider or whiskey. They mean, by this, you will be astonished to learn, the having pits or reservoirs for it to run to, whence it is taken off in carts and sprinkled over the grass or some other crop. This

absurd operation is, I give you my word, openly recommended to us republicans and free citizens, and is really performed by one or two weak men, who prefer spending their money in this ridiculous manner, rather than to aid in the support of generous and high minded persons like us, by building such noble institutions as those I told you of in Philadelphia. It is not to be expected that we shall ever commit such follies, far be it from men of our independence of character, to take such liberties with the designs of nature. What! to throw over our grounds any offensive fluid, that is nothing more than refuse matter, instead of taking the obvious hint, to let it run away. What next will these industrious people do? Our plan, on the contrary, appears more rational, we let this mattter sink into the ground, where it naturally goes, or if we can, we let it run into some stream, and if this should chance to be one that goes through our spring-house, so much the better, it will give a taste and smell to the milk and butter, that to many persons may be extremely agreeable.

Charring Vegetable Refuse.

The great advantage of employing refuse which has been submitted to this process, in the cultivation of plants, is now pretty well known. A simple way of charring the vegetable refuse of a garden, is this:—take a few dry faggots, mixed with dry straw, and set up for a centre; around these build up the rubbish, placing the chippings of wood, &c., next the faggots, and the greener parts together with tree prunings, near the outside. Around this, build with saw-dust or green turf, leaving an avenue for lighting the fire. When properly lighted, the hole at the top is closed by degrees, and holes are made lower down the heap, which are in their turn closed up as the fire draws down, and this is continued to the bottom of the heap. When all is charred the holes may be all stopped, and additional covering laid on, to prevent entirely the access of air; in a few days the heap may be opened, and the material will be ready for use; the larger parts for draining flower pots, the smaller for applying on the ground.—*Practical Florist.*

Indian Meal Cakes.—Stir to a cream a pound and a quarter of brown sugar, a pound of butter—beat six eggs, and mix them with the sugar and butter, add a tea-spoonful of cinnamon or ginger—stir in a pound and three-quarters of white Indian meal, and a quarter of a pound of wheat flour,—the meal should be sifted. Bake it in small cups, and let it remain in them till cold.

The Apple.—Of all the productions of the earth given us through the agency of a tree or a shrub, by the bountiful Dispenser of every thing that is good, the apple stands preeminent. There are none amongst others of our cultivated fruits, but which some of us would lose with regret; they would, however, be parted with as we part with a luxury. The apple, on the contrary, is not alone a superfluity, but has woven itself into our list of necessaries. We speak, of course, comparatively; for the absolute necessaries of life are few indeed. In the dessert, in pastry, in marmalades, jellies, pastes, confections; in medicine and the arts; in all these departments the apple takes its allotted place. If so multifarious be its uses, it may readily be supposed that its qualities must be variable to meet these purposes.—*The Fruitist.*

Curious Fact.—A farmer in Vermont, last season, was behind his neighbours in cutting the grass in his meadows; at night, some waggish boys went into one of his meadows and cut down all the grass in it. They also went into his potatoe patch and cut a few swathes through it. At the time of digging the potatoes they were found rotten, except where the boys had cut off the tops, and there they were all found good and sound. This would seem to show that the disease begins in the tops, and it suggests as a means of saving a crop the cutting off the tops so soon as the tops begin to die.

Iron a Remedy for Blight in Pear Trees.—A correspondent states that he has found iron ore, or cinders of iron, placed round the roots of trees, drives away the insect which deposits the eggs that produce the worm. Having tried this remedy in a sandy soil, and in a stiff soil, and in places distant from each other; and having driven off the insect when the trees of others were very much injured or destroyed in the neighbourhood, he advises all those who are troubled by these insects, to try the use of iron, rather than be under the necessity of continually topping off the limbs which contain the worm or young insect. He thinks it probable that the iron is unfavourable to the worm, which drops from the branches and makes its wintering place at the root of the tree, and then the insect avoids an unfavourable place for its young. But whatever may be the theory, it is sufficient that iron has the desired effect.—*Gardeners' Gazette.*

Honour and shame from no condition rise;—
Act well your part; there all the honour lies.

For the Farmers' Cabinet.

Culture of Roses.

To the Editor,—I send for the Cabinet the following observations, translated from the French by H. Meigs, secretary of the *American Institute*, and lately read at the *Farmers' Club.* I find them in the New York Farmer and Mechanic.

I have always enjoyed the pleasures of the flower garden, and am gratified whenever I find in the Cabinet some lively article relating to my favourite amusement. I have never believed that the lady who spends her daily half hour among her flowers, or in training her vines, is any the less qualified for the duties pertaining to her household. The mind busily engaged either in labour, or in solicitudes incident to a responsible situation, needs recreation; without which there may be danger of its elasticity and strength being impaired. To the busy housewife, where is the walk so delightful as among her flowers? where the labours of the day so easily and enchantingly forgotten, as in the midst of this "poetry of nature?" And none, I am inclined to believe, need conclude that they have not time for these elegancies. Every situation will allow a *little* time for a *little* nook, and the dressing and the keeping of this little nook, will have a happy influence in chastening and refining the heart, and the better qualify us for the discharge of every duty.

Please excuse me—when I commenced I did not intend to write this homily to my sex: but it is a favourite subject with me, and if I were not partly afraid to confess it, I would acknowledge the deep interest I feel even in the broad subject of agriculture, in all its operations. The improvement of the land—the growth of the crops—the smell of the new-made hay, and the threshing of the grain, all have charms for me, and whenever the Cabinet reads a lecture on garden or field, it is sure to find me *at home.*

Henrietta B.

New Brunswick, N. J.

"It is now nearly three thousand years since the rose was first called *the Queen of Flowers!* I fear not to say, that none of the ancients, not even the Greeks or the Romans, knew truly the merits of this delicious production of nature. Even we, until within the last fifty years, were very far from knowing the value of roses. At a late date we had but quite a small number of roses, of little variety in form and colour in our gardens. There was not among them any to be seen of those varied shapes and splendid colours which have recently been produced by an intelligent and careful culture. And those beautiful flowers were formerly transient—the bloom of only a single season, so that we were entirely deprived of them for the greatest part of the year. There was but one rose which was vulgarly called the *Rose of Four Seasons*, which occasionally gave its flowers in the autumn, but that was very precarious. Now, however, the whole face of things is changed. Roses have been multiplied in kinds and colours by planting their seeds repeatedly and by a more knowing cultivation; exhibiting now more perfect and diversified varieties of an infinite variety of shades of colour, of perfume, and blooming at all seasons of the year. The ancients called their rose gardens *Rosaria.*

"Monsieur *Loiseleur Deslongchamps*, who visited the *Rosaria* of Paris and its environs, says that he had examined that of M. Victor Verdier, who has been nineteen years engaged in the culture of roses, and has now annually from twelve to fifteen thousand Eglantine—Sweet Brier—stocks grafted with all the most precious kinds of roses, among them many raised from seed. He has 1500 varieties of roses.

"The garden of Mons. Gauthier contains 75,000 Eglantines engrafted with roses, of which 6000 are choice. These Eglantine stocks are about forty inches high, with the roses grafted on their tops, and the ground is everywhere covered with strawberries, chiefly the Alpine. Among the roses are those fine kinds from the Isle of Bourbon.

"Monsieur Jacques, chief gardener of the king, at Neuilly, has planted a great many rose seeds and obtained many very fine varieties. He sowed the seeds of the rose of Bengal, from which we now have roses called of the Isle of Bourbon. He plants rose seeds every year."

Dr. Mease.

Agriculture seems, from a very early period, to have been one of Dr. Mease's principal occupations as well as enjoyments. To this he gave the active energies of his manhood and the mature judgment of more advanced life. It was to the last his passion. As Secretary, as Vice-President, and at last as President, of the Society established in this county for the promotion of agriculture, his services were freely given, and always with that kind of zeal that showed that his heart was in the cause. In its promotion he stood side by side with some of the chief citizens Philadelphia has

produced, who have been her pride and ornament, who gave her a character while they lived, and left her one to sustain now they are no more. Tilghman, Rawle, Peters, Vaux, were among the men with whom he acted—men who, from their characters, eminent talents, and devoted love to their country and city, could but inspire in one so active and zealous as Dr. Mease, the desire of emulation, and a feeling of conscious pride that in following where they led, that in imitating their example, in aspiring to their virtues, he would attain a portion of their usefulness, and gain some of the esteem and regard of his fellow-citizens, which their gratitude conceded to these his predecessors. To him the agricultural community are indebted for the introduction of that beautiful breed of animals, the Durham short-horned cattle. He suggested their importation to Colonel J. H. Powel, at the time in England; and it was fortunate that the intimation was made to one so liberal and so well disposed to serve the interest of his country. He was also among the first who endeavoured to introduce the cultivation of silk. His labours and his disappointments were very great in this design. It was in advance of the condition of the country; but credit still belongs to him and his coadjutors, of having projected a plan, that at some future time will probably be of eminent utility to the interests of the nation. This, we believe, was, if not the last, yet the most important of his endeavours, to advance the prosperity of his native country. —*Saturday Courier.*

The Preservation of Roofs.

In the country, where numerous buildings are indispensable for the farmer, and where the roofs are generally of wood, it is a matter of great importance to preserve them as long as possible. Whenever they need repairing, or to be laid anew, they make a heavy item in the year's expenses. We hope the following from the *Farmer and Mechanic*, may prove useful.—Ed.

A writer in the Boston Cultivator, referring to wooden roofs and their rapid decay, gives the following cheap and simple method of preserving them for many years. He observes, "A friend of mine, who unites much close observation with large experience in building, states that the best preservative of shingles that has come within his knowledge, is to soak them in an alkaline solution of quick lime before they are put on. The plan adopted by him for the purpose, is to prepare a box in which to dissolve the lime, similar to that used by plasterers, and have it elevated, so as to permit the lime water to be drawn from it, into another box in which the shingles are to be placed that are intended to be impregnated with the alkaline solution. A sufficient quantity of quick lime is put in the upper box, which is slacked and reduced to a thin wash, and well stirred up, when it is permitted to settle.

The shingles are set on end, with their butts down, in the lower box, which is sufficiently deep to permit the parts which will be exposed to the weather when they are put on in courses, to become soaked, by drawing down the alkaline lime water from the upper box into the one below in which they are placed. They should remain in this solution for some hours, when they are removed and suffered to dry, and others substituted in the box to undergo the same operation before they are nailed on the lath.

"No part of white wash or lime should be permitted to pass into the lower box; it being the caustic alkaline solution of the lime only, which is beneficial; it is a powerful antiseptic, interposing powerful obstacles to the decay of wood or vegetable matter of any kind. The presence of the insoluble particles of the lime would tend to clog the pores and interstices of the wood, and impede or prevent the entrance of the alkaline solution of the lime, which is perfectly fluid and transparent.

"An old roof may have its usefulness extended for many years, by simply spreading pulverized quick lime over it, so as to form a very thin coat of it on the roof; by the absorption of the dew, the alkaline solution will be formed, and will penetrate the shingles, which will be cleared from moss and preserved by it, and on the occurrence of a heavy rain the insoluble parts of the lime will be washed off, leaving it clean.

"The tendency of white wash to preserve wood from rotting, is universally acknowledged, but it should be borne in mind, that it is the alkaline solution of the lime only, which has this tendency, and that the gross, insoluble particles of the lime which remain for a time in the form of a scale on the surface to which it has been applied, has nothing to do with its antiseptic powers, and that where the design of its application is to preserve the wood only, it would better accomplish the object by being much more diluted than it generally is, so that the alkaline quality would be more thoroughly absorbed than is usually the case. It is a very curious and interesting fact, that water at the freezing point dissolves twice as much of the alkaline ingredient of lime as boiling water does, so that the use of hot water to dissolve lime is worse than useless."

Interesting Statistics for Wheat-growers and Millers.

The decline in prices of flour and wheat this spring, has been the source of disappointment to a great many who operated last winter at very high rates, calculating upon large profits to be now realized, and as it appears that those views are entirely frustrated, a calm view into the causes, at this particular juncture, may not perhaps come amiss. After last harvest the crop of wheat was ascertained to be a very large one, and almost every individual engaged in the trade looked for the ruling of low prices, unless something occurred to create an extra foreign demand. Shortly afterward we began to receive accounts from England of the probable failure of the crops there, which immediately gave a spur to prices, and purchases were made for shipment to that quarter—advices continuing to be received confirmatory in that respect, speculation started, until prices ran up in New York to $7 per barrel for flour. It appears that rate could not be continued—although many anticipated $8 to $10—and why?—a few figures will show. The annual average crops of wheat in Great Britain for the past few years, has been equal to twenty millions of quarters of eight imperial bushels of 70 lbs. According to all well informed sources, the crop of wheat there last year was ascertained shortly after harvest to be about nineteen millions of quarters, requiring one million of quarters to be received from other countries to make up said deficiency. The crops on the continent being rather short of previous years, this country was naturally looked to for what Great Britain stood in need of; hence the continued shipments to that quarter even up to the present time. Now what is the state of matters there. By last advices received from that section, per "Hibernia," the quantity of wheat and flour under lock or in bond, in the United Kingdom, made up to the 5th of April, is thus shown:

Wheat,	1,227,374 quarters.
Flour,	950,871 cwt.—reduced

to wheat, will equal 330,000 quarters—making total of wheat upward of 1,500,000 quarters—50 per cent. more than their actual deficiency. The above stock in bond has been accumulating since, and it would not be surprising if the quantity increase to near two millions of quarters, before any would be released, which is altogether awaiting the action of Parliament on the new corn bill.

Our crop of wheat last season no doubt was the largest ever gathered in this country. The Commissioner of Patents, who has for a number of years collected statistical information of such things, puts it down to about 106 millions of bushels, but that is evidently below the quantity: 120 millions would be nearer the mark. With our population of 20 millions of inhabitants, the consumption would be

Equal to	90,000,000 bush.
Add for seed	10,000,000 "
Would leave for export	20,000,000 "

The quantity left over of the previous crop is not taken in the estimate, as such may average about the same from one crop to another. The number of bushels put down for export, it will be perceived, is about double of what Great Britain required—say ten millions of bushels of 60 lbs.—our ordinary export demand seldom coming up to ten millions of bushels, or 2,000,000 barrels of flour. Present indications show that the above estimate of the crop in this country is not far, if at all out of the way.

The whole error, therefore, has been, that parties did not look far enough to see what Great Britain actually wanted—as that was the only source we could expect to carry off our extra surplus—but went blindly into it, anticipating that they would never be able to send enough there—and because she required a small quantity, a larger amount must necessarily follow. Some would probably say that the failure of the potatoe crop in Ireland, would require an extra consumption of flour. The difficulty in that respect with the poor peasantry of that country, was their deficiency of means to purchase such an article of food—and if any one would take the pains to examine the English papers, they would find evidence of this in the continual arrivals of wheat, &c., at the different ports in England, from the very *famished* districts in Ireland. No, they went on the coarser articles, such as peas, beans, oatmeal, &c., of which there is an abundance. Again, since the spring has opened, arrivals have taken place in England, from the Baltic and other ports on the continent, of wheat, notwithstanding the talk of great scarcity there also.

Prices will now entirely depend on our next crop—for it is apprehended shipments to England are pretty much at an end for the time being—which to all appearances will be large, if not larger than the last—for the high prices last fall no doubt stimulated farmers to put in greater breadth of ground, in conjunction with which nothing has as yet appeared materially to affect its yield; hence low prices must necessarily ensue—unless we have another *famishing*

country to supply perspectively, and get up speculation, with its unhappy results, such as are now experienced.—*Buffalo Advertiser.*

From the Cincinnati Gazette.

Summer Pruning Fruit Trees, and Thinning Fruit.

It is singular that so little attention is paid by cultivators to the *summer pruning* of fruit trees. This, I presume, is owing to *custom* having made it a general rule to prune trees in the spring. The system is however a bad one, in a certain measure, which may be readily seen by a little observation. For instance, *all trees are liable to make suckers* from the centre, which exhaust the substance of it, and are useless; every one agrees, by common consent, that useless shoots should be cut out, and it is yearly done in the ensuing spring *after* they have impoverished the tree; hence they are deprived of about one-fifth of their substance annually. If these shoots were regularly cut out early, after making some growth, say in May or June, the substance that they exhaust would go to nourish the other branches and fruit. In the second place, trees, grape vines, shrubs, &c., often become very thick of wood in the summer, especially when they are in confined places; all the young wood that is formed in this state is weak and useless, because it cannot receive the *sun* and *air* sufficiently to properly mature it; this, too, like the *suckers*, deprives the tree of a portion of its nutriment, or at least that portion of it that is to bear the succeeding season. This useless wood becomes weak and sickly, the leaves turn yellow, and are a nursery for various kinds of insects, and according to custom is pruned out of the tree the following spring; when common sense tells us it ought to be taken from the tree in summer, in order to give the substance it has deprived the tree of to the proper branches.

I do not contend that the summer is the season for the general pruning of trees; for I prefer the spring for this business; but whenever trees or vines are thickly crowded with summer wood, or any shoots, as suckers or straggling branches, that cause trees to grow of irregular shape, it should be a general rule to displace them, in order to keep the tree in proper shape and in a healthy state.

Thinning of fruit, when young, is also essentially requisite in order that it may grow to its proper size and quality. It often happens, when the spring is propitious to fruit, that the trees and vines are so loaded that it is impossible for the tree to render it proper sustenance, so that the fruit neither forms into a proper size or quality. This is often the case after a failure the previous season, owing to which the trees are furnished in the interval of rest, with a superabundance of *fruit-buds or spurs;* hence we often see *alternate* crops of fruit, which should be as much as possible counteracted, by trimming out a goodly portion of fruit, when such abundant crops appear. This adds much to the quality and flavor of the fruit, and is also of a material use to the tree, in order to give it vigor to furnish fruit-buds for another season in a healthy state, which are weakened by a superabundant crop of fruit, and are often the cause of failure the next season. When sickly trees are overburdened with fruit, which is often the case, owing to weakness, they should be well thinned, in order that what is left may be well matured, for it is very evident that when fruit drops off the tree half grown, it has exhausted it in a measure to a useless purpose.

Edward Sayers.

Consumption of Corn-meal in the West India Islands.

The consumption of corn-meal and other American produce throughout the British West India islands, since the emancipation of their slaves, has considerably increased. The negro, formerly limited by law to a certain quality and quantity of food, has now his choice of both, as far as his means, obtained by labour, will admit; hence the consumption of pork, beef, butter, lard, cheese, flour, bread, etc., etc., formerly luxuries, are now in general use, and increasing to an immense extent, while the consumption of corn-meal, the only food during slavery, is again reviving, and its use on the increase, from the following causes.

In the Antilles, Jamaica, Barbadoes, and Trinidad excepted, the lands are too valuable, "under a protective system, and at the low price of life's necessities in the United States," to produce corn, yams, casadas, or other substitutes for bread; besides which, the operations of growing and manufacturing sugar cannot be accomplished without combined labour; hence the labourer, allured by the magic of money, which he can readily obtain for his labour, neglects even the small patch of ground on which, as a bondsman, he was entirely dependent for a few pennies to purchase a bit of pork or white bread—"then luxuries."

Barbadoes consumes now from 20,000 to

25,000 barrels of corn-meal annually; whereas, previous to the emancipation, not a barrel was imported. Anterior to the emancipation of slavery, a great many small farmers, called ten-acre holders, existed by raising corn and ground provisions for the use of the planter to feed the slaves; so abundant at times were their crops, that I have known corn to be shipped from Barbadoes to St. Thomas. The natural decrease in labour since the emancipation, by the same number of hands, has, in order at all to approximate former crops, caused an increased demand for labourers, which has drawn this class of agriculturists from their former occupations, finding it more to their advantage to render services for ready money, supplying their wants in market. I do not for a moment pretend to say that Barbadoes is altogether dependent on foreign imports of corn-meal: 25,000 barrels per annum, are but a small portion of sustenance for a labouring population numbering at present 85,000 souls; but I feel fully assured the same causes which have created the present demand are on the increase. Trinidad has increased her population much since the emancipation of slavery. It has, however, as yet, for its extent of country and fertility of soil, a small population, raising within themselves a good deal of corn, and receiving some supplies from South America. The consumption can at present only be computed at 10,000 barrels, while that of Demarara is about 15,000.

Jamaica, with a labouring population of about 325,000 souls, consumes comparatively less than the former-mentioned islands: 30,000 barrels may at present be considered the extent. Large tracts of lands have, since the emancipation, become divided among the labouring classes, producing large quantities of substitutes for cheap breadstuffs. This circumstance, combined with the almost spontaneous growth of fruit and vegetables, makes the labouring classes at certain seasons less dependent on foreign supplies; but as the population is and must continue on the increase, so follows an increase of wants. St. Croix, St. Thomas, and St. John's, are permanent, being fixed by law to seven quarters of meal for each labourer; which amounts, at St. Croix, according to a statement furnished by the Royal Danish Chamber of Commerce at Copenhagen, to 9,500 puncheons, or equal to 38,000 barrels. St. Thomas and St. John's consume about 6,000 barrels. St. Croix consumes but few other American provisions except flour, of which about 4,000 barrels of American; the balance of her consumption, about 3,000 barrels of flour, large quantities of beef, pork, etc., are supplied by the mother country—Denmark. Yet that island, only 100 square miles, with a population of 34,000, employs yearly about 10,170 tons American shipping. For the general trade of the West Indies, meal in barrels is found most saleable. St. Croix and Porto Rico, however, require their supplies in puncheons, of 800 lbs. net,—such as shipped from Brandywine mills—both on account of its better keeping, and use for the puncheons for rum and molasses.

From the foregoing illustrations, I will now venture upon a general computation of the consumption of corn-meal throughout the West Indies. Antigua, Dominica, Granada, Montserrat, Nevis, St. Kitts, St. Lucy, St. Vincent, Tobago, Guadaloupe, Martinique, the Virgins, and Bahamas, with a population of 184,000 souls, must, in common calculation, consume

Annually about 200,000 barrels, say	200,000 bbls.
Barbadoes, 25,000; Trinidad, 10,000	35,000 "
Demarara	15,000 "
St. Thomas, St. Croix, and St. John's,	44,000 "
Porto Rico, 40,000; Jamaica, 30,000	70,000 "

making 364,000 bbls. corn-meal annually. A branch of trade so easily at our command has hitherto been neglected, or but partially and imperfectly commenced; whereas, with this article, the supplying of every other article of provisions from our port would follow.—*New Orleans Bulletin.*

The Apple Tree.

THE apple, says Thomas Andrew Knight, a writer of well established authority in fruit and fruit trees—is not the natural produce of any soil or climate, but owes its existence to human art and industry; and differs from the crab, which is a native of every part of England, only in the changes which cultivation has produced in it. The first varieties which were cultivated in England, were, no doubt, imported from the continent; but at what period, is not, I believe, known. Many were introduced by a fruiterer of Henry the VIII., and some at subsequent periods; but I am inclined to think that we are indebted to the industry of the planters of the seventeenth, and the end of the preceding century, for most of those we have at present, and probably for all the old fine cider fruits. Of these they have left us a sufficient number; but the existence of every variety of this fruit appears to be confined to a certain period, during the earlier parts of which only, it can be propagated with advantage to the planter. No kind of apple now cultivated, appears to have existed more than two hundred years; and this term does not at all

exceed the duration of a healthy tree. Vegetable, however, like animal life in individuals, appears to have its limits fixed by nature, and immortality has alike been denied to the oak and to the mushroom; to the being of a few days, and of as many centuries. The general law of nature must be obeyed, and each must yield its place to a successor. The art of the planter readily divides a single tree into almost any number that he wishes; but the character of the new trees thus raised, is very essentially different from that of a young seedling plant; they possess a preternatural maturity, and retain the habits and diseases of the tree of which they naturally formed a part.

All efforts which have hitherto been made to propagate healthy trees of those varieties which have been long in cultivation, have, I believe, been entirely unsuccessful. The grafts grow well for two or three years, after which they become cankered and mossy, and appear, what I consider them really to be, parts of the bearing branches of old diseased trees.

When I first observed the unhealthy state of all the young trees of these kinds, I suspected that it arose from the use of diseased grafts taken from old trees, and that I should be able to propagate all the valuable varieties by buds taken from young newly grafted trees, as these can scarcely be said to take any of the wood of the old stock with them; but to remove still farther every probability of defect which might be communicated from the old tree, I inserted the young shoots and buds taken from newly grafted trees in other young stocks, and I repeated this process six times in as many years, each year taking my grafts and buds from those inserted in the year preceding. Stocks of different kinds were also used; some were double grafted, others obtained from the branches of apple-trees which had emitted shoots from cuttings, and others from the seeds of each kind afterwards inserted in them, under the idea that there might be something congenial to the fruits in stocks of this kind. The grafts grew tolerably and equally well in all; but there was a want of hardness and elasticity in the wood, and at the end of three or four years, all began to canker.

Oat Fodder for Horses.

At a discussion had at a meeting of the Darlington (Eng.) Farmers' Club, Dec. 8th, on the best and cheapest mode of keeping draught horses, during winter, Mr. Trotter said:

"I have paid some attention to the subject of keeping draught horses during the winter; for the last three years I have adopted quite a different mode from what I previously followed. My method formerly was, to allow my draught horses each two bushels of oats per week, together with one bushel of beans, and as much hay as they could eat, generally clover hay. For the last three winters, I have fed them almost entirely on cut oat-sheaf—cut into half inch chaff—which has been a very great saving to me.

"In an oat crop of about forty stooks per acre, which might yield near 60 bushels, the feed of a draught horse averages two sheaves per day, or fourteen sheaves per week, which would be about a bushel and three pecks per week, if they had been threshed out, which is a saving of a peck of oats per week, each horse, from what I formerly gave them; besides, I save the bushel of beans per week, and the clover hay, which was a very considerable item. When I first changed my mode of feeding, the horses improved in condition wonderfully, thus showing that it suits them well. When they are very hard worked, I allow them half a peck of oats at dinner time, besides the cut sheaf.

"Last winter I had only eighteen acres of oats; these kept twelve draught horses, besides four young ones occasionally. This quantity of oats would not have served me through the year, had I not pursued this system of feeding."—*London Agricultural Gazette.*

Wonders of Insects.

A skilful naturalist has been able to perceive that in the body of the lowest caterpillar, which in the common opinion, is one of the most degraded existences on earth, there are upwards of two thousand muscles, all of which can be brought into action with as much facility, at the will of that insect, and perform their several offices with as much accuracy, promptitude, and precision, as the most perfect animal. It would be no easy matter to make some men believe that the most minute insect, whose whole life may be calculated for only the duration of a few hours, is, in all parts, for the functions it has to perform, as complete as the majestic elephant, which treads the forests of India for a century. Little do they suppose, that, even in its appearance under the greatest magnifying powers, it is as elegant in every respect, and as beautifully finished, as any of the largest animals. Unlike the paltry productions of man, all the minute parts of these works of God appear in greater perfection, and afford to us a greater degree of admiration, the more minutely and accu-

rately they are examined. M. de Lisle saw, with a microscope, a very small insect that in one second of time advanced three inches, taking five hundred and forty steps; and many of the discoveries of Leuwenheck were even still more wonderful than this.—*Note Book of a Naturalist.*

Peach Trees.

The following letter from New Jersey was read at a late meeting of the Farmers' Club, in New York. We could not agree with the writer that the *yellows* is not a serious cause of failure. We have regarded it about as much so as the *worm*.—Ed.

It was about the year 1804 or 5, that the grub began to destroy the peach trees in New Jersey. My father had at that time 30 or 40 acres in fine condition and young trees. They began to fail, and in two or three years were either dead or of no value. We found that in proportion as the worms progressed around the trees the same were more or less decayed, and as such has been my uniform observation ever since I have failed in raising as many trees as would even supply my family with fruit until within six or seven years, and of late, have only grown enough to test the certainty of my remedy. Of the many trees which I have examined—I may say thousands—with the exception of one, I have found their failure to be from the worm. I do not believe in the yellows as a serious cause of failure in this part of New Jersey. While I was on a farm I tried very many plans for saving my trees, but they all failed. My belief is, that an insect in the course of the summer deposits its eggs in the body or limbs of the tree, and that before winter the eggs are hatched and the insects find their way to the bark of the root about an inch below the surface of the ground. I have found plenty of them singly, or in clusters in crevices of the bark in October and November; and often—if late in the season—when they have pierced and entered the bark: about that locality, and never above the surface of the ground, or far below. I have tried many experiments on scores of these worms to find their bane, and none has answered better than the *Corrosive Sublimate.* I have prepared it as follows: common tar, 2 lbs.; tallow, 2 lbs.; melt them together, and after they are cooled so much as to hold suspended, add three ounces pulverized corrosive sublimate, and three ounces pulverized common salts of nitre. Stir the preparation from the time it begins to cool until the powder is thoroughly diffused through the entire mass.

Then the earth must be removed from the trees down to the departure of the roots, and the surface well rubbed with a cloth or brush, and all crevices and defects in the bark freed from the soil. The preparation must then be applied, a little warmed, but not enough to allow the powder to separate from the mass. Then with an old brush thoroughly cover every part and crevice of the bark with the preparation, from the branching of the roots to about two inches above the ground. Surround this surface with a single bandage made of old India rubber cloth, oil cloth, or any cheap muslin well painted and dried for use, or any other covering which will certainly prevent the absorption of the corrosive by the wet earth. Then tie a string around the bandage firmly at the upper end above the ground, and replace the earth and pack it around the tree as before. In the early part of next April take off the bandages, cleanse, and save them for use again. You will find the preparation still on the bark, but no grubs alive, and if any are found in newly dressed trees, they will be nothing more than the skins of worms which had gained an entrance before the dressing was applied. No grub can live under this dressing if applied as is here directed. The corrosive costs about eight shillings per pound, which would be sufficient to protect a large orchard. The whole expense of making the application will, I think, not exceed two cents a tree.

Potatoes.

There is a new potatoe called Thurston's Victoria, of which the most extraordinary stories are told, as to its bearing. I do not doubt the facts—but I saw, I should think, two bushels taken from four potatoes once; they may be said to have occupied in actual measurement a plot two feet in width and six feet in length; and this was by the grower multiplied by as many such plots as there were in an acre, and it was given out at once that the said potatoe yielded so many tons to the acre; but the four potatoes were taken infinite pains with, and the place all round them bore nothing, for it was robbed to earth them up; and the mere little plot which they occupied was no criterion of the space required; that plot was all potatoes, and there was no fairness in estimating an acre equally filled, because it would be impossible to fill it. I do not say Thurston's Victoria depends on any such recommendation—but all stories about a thing yielding "at the rate of," should be read with caution. I consider any good new potatoe an acquisition, therefore mean not to discourage any.—*Gardener and Practical Florist.*

White Doyenne, or St. Michael Pear.

S. B. Parsons, of Flushing, makes the following remarks in relation to this tree, in the American Agriculturist. They may equally apply to other varieties of fruit that may seem to be on the decline.—Ed.

This fruit, as we learn from the various periodicals, and from our own correspondents, has been infected with disease, not only in the Eastern States and on the seaboard, but throughout the country, in the interior of Pennsylvania, Cincinnati, and through Ohio, and in the State of New York. A short time since, we wrote to various correspondents for information on this point, and have received numerous answers to the above effect. We learned that the fruit of this variety was infected also about Albany, and in some localities on the Hudson river. We speak of the fruit being infected, for the tree is evidently untouched, and grows with as much luxuriance as any other variety. It is now generally acknowledged that this deterioration in the quality of fruit is owing not to any actual disease existing in the tree, but to the depredations of insects, which it is well known will often prey upon some particular varieties of trees or fruit for successive years. It is, I believe, a fact, that young trees of this variety produce healthy fruit. This is doubtless owing to their greater thriftiness, and to the cultivated condition of the soil. Our own experience would seem to strengthen this opinion, that disease may in a great measure be eradicated by care and high cultivation. Our old Doyenne trees, some forty or fifty years old, had for many years suffered from the common blight. For the last two years the orchard has been highly manured and cultivated, and this year much of the fruit produced is perfectly sound, and with its ancient delicious flavor. The same treatment produced the same result in the Newtown pippin, which had shown some symptoms of the same blight. We have every reason therefore, to think that the white Doyenne has not "run out;" that it is gradually improving, and that by care and cultivation it may be restored to its pristine vigor and perfection.

Fences and outbuildings should be whitewashed, or coated with some material which, while it serves as a protection against the weather, will also add to the neatness and ornate attractions of the homestead. A very durable wash may be formed by mixing with the water, before the lime is slacked, as much salt as will dissolve, or by boiling *rice*, and mixing the liquid with the mineral after it is slaked.

The Field of Wheat.

By H. F. Gould.

Field of wheat, so full and fair,
Showing thus thy silver hair,
Lightly waving either way
Where the gentle breezes play,
Looking like a sunny sea,
How I long to gaze at thee!
Pleasant art thou to the sight,
And to thought a rich delight;
Then thy name is music sweet
Silken sounding field of wheat!

Pointing upwards to the sky,
Rising straight and aiming high,
Every stalk is seen to shoot
Like an arrow from the root;
As a well trained company,
All in uniform agree,
From the footing to the ear—
All in order strict appear;
Marshalled by a skilful hand,
All together bow or stand.

Still within the proper bound:
None o'ersteps the given ground,
With its tribute held to pay
At his nod whom they obey.
Each the gem that studs its crown,
Will in time for man lay down.
Thou with promise art replete,
Bearing precious sheaves of wheat!
How thy strength in weakness lies!
Not a robber bird that flies
Finds support whereby to put
On a stalk her lawless foot;
None her predatory beak
Plunges down thy store to seek,
Where thy guard of silver spears
Keeps the fruit and decks the ears;
No vain insect that could do
Harm to thee, dares venture through
Armory like thine, to win
From the sheath the grain within.

What a study do we find
Opened here for eye and mind?
Who that sees thee as thou art
Can disown a grateful heart?
Here upon this favoured ground,
Faith is blessed and hope is crowned;
Charity may find the bread
Wide abroad her gifts to spread;
Wisdom, power and goodness meet,
Beauteous, bounteous field of wheat.

John J. Murray, of Springfield, N. J.,—says a New York paper—died recently from skinning a poisoned animal; about two weeks after the act, his left arm upon which the intestines of the animal were carried, commenced swelling badly, and was succeeded by a mortification. Two women who assisted in the act, were also in a dangerous condition.

From the Prairie Farmer.

Wild Ducks Tamed—Beavers.

It is a fact not generally known, that it requires three generations of compulsory domestication to eradicate the wild habits of the duck. Many years ago, in England, a friend of mine took a fancy to domesticate wild ducks. He first had some very young wild ducklings caught and placed with a brood of tame ducks in a pond of water. The young savages all dived out of sight, and completely separated themselves from the brood of tame ducks of their own age. Some died; others occasionally swam with the young tame ones; but on the approach of any person they concealed themselves closely in the little tussacks of grass and reeds at the edge of the pond. As they grew strong enough they fluttered away and were all lost. He next procured eggs of the wild fowl and set them under a domestic duck with an equal number of her own. The young ducks from the wild eggs were as wild as the young ones that were caught, and most of them on attaining sufficient size fled off to their wild kindred and were seen no more.

In the course of many experiments of this kind, he succeeded in making *pets* of one or two birds. They were not domesticated in the regular way of tame poultry, but were pets about the house—would feed out of hand, and like almost all *petted* animals, were nuisances about the house. But the annoyance was endured on account of the great advance in domestication that was supposed to have been made. Their eggs were carefully preserved and hatched under a tame duck. The offspring proved as wild as the young ducks hatched from the eggs taken from the wild duck in its original state. On attaining growth they all went off. This he thought conclusive evidence that wild ducks could not be tamed.

A person to whom he related these circumstances procured wild ducks' eggs, and proceeded with his experiments in the following manner: The wild ducks and tame ducks were hatched together, as in the former case. They were all put to school immediately. The duck house and small pond adjacent were well fenced in, so that no young duck could possibly creep out. The edge of the pond was kept free from much grass and reeds, so that there was but small chance for them to hide. They were shut up every night, and fed at regular intervals. As the young ducks increased in size they were pinioned in some way that prevented their flying. The result of this experiment was, that in the third generation the ducks became wholly dependent on man for their support—had lost their wild propensities, and were completely domesticated. Although they no longer flew to the woods, their habits were not completely those of the tame ducks. They were more active and watchful, and would frequently dive on the approach of a stranger. Neither had their domestication been sufficiently long continued to change the order and colour of their plumage.

Beavers.—May not the beaver be domesticated with a fair prospect of profit? This peaceful animal, from the ruthless war made upon it by man, is fast disappearing, and the whole race is in danger of becoming extinct. The skin of a beaver, when fat and in season, is worth more than the skin of a sheep with the wool on. Alpacas are being imported from South America. Surely, to save from destruction our *native* beaver, and to cultivate his already valuable qualities, would be as laudable and patriotic an act as to import new animals from foreign countries.

Whoever undertakes it, let him be patient and persevering. Remember the case of the wild ducks.

St. Maries, Jasper Co., Ill., April, 1846.

Gum Arabic.—In Morocco, about the middle of November, that is, after the rainy season, which begins early in July, a gummy juice exudes spontaneously from the trunk and principal branches of the acacia tree. In about fifteen days it thickens in the furrow, down which it runs, either in a vermicular or worm shape, or more commonly assuming the form of round and oval tears, about the size of a pigeon's egg, of different colours, as they belong to the white or red gum tree. About the middle of December, the Moors encamp on the borders of the forest, and the harvest lasts six weeks. The gum is packed in very large sacks of tanned leather, and brought on the backs of bullocks and camels to certain ports, where it is sold to the French and English merchants. The gum is highly nutritious. During the whole time of the harvest, of the journey, and of the fair, the Moors of the desert live almost entirely upon it; and experience has proved that six ounces of gum is sufficient for the support of a man during twenty-four hours. —*N. Y. Mechanic.*

The white of an egg is said to be a specific for fish-bones sticking in the throat. It is to be swallowed raw.

Premiums of the Pennsylvania Horticultural Society.

The following will be awarded at the Society's Autumnal Exhibition next month:

NATIVE GRAPES.

For the best Isabella, six bunches to be exhibited, $3.
For the next best do. do. $2
For the best Bland or Powell, do. 3
For the next best do. do. 2
For the best Catawba, do. 3
For the next best do. do. 2
For the best Elsinborough, do. 3
For the next best do. do. 2
For the best of another variety, do. 3
For the next best do. do. 2

FOREIGN GRAPES RAISED IN THE OPEN AIR.

For the best Black or Red Hamburgh, four bunches to be exhibited, $5
For the best Hanstretto, do. 5
For the best Black Constantia, do. 5
For the best Chasselas, do. 5
For the best White Gascoigne, do. 5
For the best Frontignac, do. 5
For the best St. Peter's, four bunches to be exhibited, $5
For the best of another variety, do. 5

FOREIGN GRAPES RAISED UNDER GLASS.

For the best, without artificial heat, four bunches to be exhibited, $5
For the next best do. do. 3
For the best, with artificial heat, four bunches to be exhibited, $5
For the next best do. do. 3

PEACHES.

For the best, one bushel to be exhibited, $10
For the next best do. do. 5
For the best, one peck to be exhibited, 3
For the next best do. do. 2
For the best, two dozen to be exhibited, 2

PEARS.

For the best Seckel, one peck to be exhibited, $3
For the next best do. do. 2
For the best Beurré, or Butter, one peck to be exhibited, $3
For the next best do. do. 2
For the best Bartlett, half a peck to be exhibited, $3
For the best of another variety, one peck to be exhibited, $3
For the next best do. do. 2
For the best and most numerous named varieties, $8
For the next best do. do. $5
For the next best do. do. 3

APPLES.

For the best, one bushel to be exhibited, $3
For the next best do. do. 2
For the best, one peck to be exhibited, 2
For the best and most numerous named varieties, $8
For the next best do. do. 5
For the next best do. do. 3

QUINCES.

For the best, half a peck to be exhibited, $3
For the next best do. do. 2

NECTARINES.

For the best, one dozen to be exhibited, $3

PLUMS.

For the best, two dozen to be exhibited, $3
For the next best do. do. 2

WATER MELONS.

For the best, Spanish variety, three in number, $3
For the next best, do. do. 2
For the best of another variety, three in number, $3
For the next best do. do. 2

NUTMEG MELONS.

For the best, three in number to be exhibited, $2
For the next best do. 1

POTATOES.

For the best, one bushel to be exhibited, $2
For the next best, do. 1
For the best American seedling, of superior quality, $5
For the best Sweet, one bushel to be exhibited, $2
For the next best do. do. 1

ONIONS.

For the best, four dozen to be exhibited, $2
For the next best, do. 1

CABBAGE.

For the best, six heads to be exhibited, $3
For the next best, do. 2
For the best red, do. 3
For the next best do. 1

CARROTS.

For the best, garden culture, two dozen to be exhibited, $2
For the next best, do. do. 1

BEETS.

For the best, one dozen to be exhibited, $2
For the next best, do. 1

LETTUCE.

For the best, six heads to be exhibited, $2
For the next best do. 1

ENDIVE.

For the best blanched, six heads to be exhibited, $2
For the next best do. do. 1

CHARD.

For the best, six heads to be exhibited, $2
For the next best do. 1

CARDOON.

For the best, six heads to be exhibited, $2
For the next best do. 1

CELERY.

For the best, six stalks to be exhibited, $2
For the next best do. 1

SALSIFY.

For the best, two dozen to be exhibited, $2
For the next best do. 1

EGG PLANTS.

For the best, six in number to be exhibited, $2
For the next best do. 1

TOMATOES.

For the best, one peck to be exhibited, $2
For the next best do. 1

CRANBERRIES.

For the best, cultivated, half a bushel to be exhibited, $2
For the next best do. do. 1

PUMPKINS.

For the two largest, $2
For the next do. 1

VEGETABLES.

For the best display, $10
For the next best do. 7
For the next best do. 5
For the next best do. 3

HONEY.

For the best display, $5
For the next best do. 3
For the next best do. 2

GREEN-HOUSE PLANTS.

For a group of twelve of the best, named specimens, $10
For another group of twelve of the next best do. $5

DAHLIAS.

For the best, fifty named varieties to be exhibited, $5
For the next best do. 3
For the best, twenty named varieties to be exhibited, $3
For the next best do. 2
For the best American seedling parti-coloured, $3
For the best American seedling self-coloured, $3
For the best ten named varieties, grown by amateurs, $3
For the next best do. do. 2
For the best, grown by amateurs, 2

FOR DESIGNS FORMED OF CUT FLOWERS, &c.,

Which are not to occupy at their base more than six feet square.

For the best and most appropriate, $40
For the next best do. 30
For the next best do. 20
For the next best do. 15
For the next best do. 12
For the next best do. 10
For the next best do. 8
For the next best do. 6
For the next best do. 5

☞ No special premiums to be awarded for designs.

FOR BOUQUETS,

To be confined to those suitable for the centre-table, or the hand.

For the best and most approved, $7
For the next best do. 5
For the next best do. 3
For the best, formed of indigenous flowers, $5
For the next best do. 3
For the best pair of wreaths for festooning, $10
For the next best do. do. 5
For the next best do. do. 3

Removal of Foreign Bodies from the Eye.—A German writer has recently proposed that when a foreign body, such as a particle of straw, dust, &c., gets between the eyelid and the globe of the eye, but without being infracted, a solution of gum arabic dropped into the eye, may be advantageously employed for its extraction, as the solution does not produce any disagreeable sensation.

Abundant crops of hay have been gathered through the country.

Culture of the Strawberry.

The strawberry is the most delicious and the most wholesome of all berries, and the most universally cultivated in all gardens of northern climates. It is a native of the temperate latitudes of both hemispheres,—of Europe, Asia, North and South America; though the species found in different parts of the world are of distinct habit, and have each given rise, through cultivation, to different classes of fruit—scarlet strawberries, pine strawberries, wood strawberries, hautbois, &c.

The name of this fruit is popularly understood to have arisen from the common and ancient practice of laying straw between the plants to keep the fruit clean. In the olden times the variety of strawberry was very limited, and the garden was chiefly supplied with material for new plantations from the woods. Old Tusser, in his "Five Hundred Points of Good Husbandry," points out where the best plants of his time were to be had, and turns them over, with an abrupt, farmer-like contempt of little matters, to feminine hands:—

> "Wife, into the garden, and set me a plot
> With strawberry roots, of the best to be got;
> Such growing abroad, among thorns in the wood,
> Well chosen and picked, prove excellent good."

The strawberry belongs properly to cold climates, and though well known, is of comparatively little value in the south of Europe. Old Roman and Greek poets have not therefore sung its praises; but after that line of a northern bard,

> "A dish of ripe strawberries, smothered in cream,"

which we consider a perfect *pastoral idyl*—as the German school would say—in itself, nothing remains to be wished for. We have heard of individuals who really did not, by nature, relish strawberries, but we confess that we have always had the same doubts of their existence as we have of that of the unicorn.

Ripe, blushing, strawberries, eaten from the plant, or served with sugar and cream, are certainly Arcadian dainties with a true paradisiacal flavour, and fortunately, they are so easily grown that the poorest owner of a few feet of ground may have them in abundance.

To the confectioner this fruit is also invaluable, communicating its flavour to ices, and forming several delicate preserves. In Paris a cooling drink, *bavaroise a la grecque*, is made of the juice of strawberries and lemons, with the addition of sugar and water.

The strawberry is perhaps the most wholesome of all fruits, being very easy of digestion, and never growing acid by fermentation, as most other fruits do. The often quoted instance of the great Linnæus curing himself of the gout by partaking freely of strawberries—a proof of its great wholesomeness—is a letter of credit which this tempting fruit has long enjoyed, for the consolation of those who are looking for a bitter concealed under every sweet.

Propagation and Soil.—The strawberry propagates itself very rapidly by runners,* which are always taken to form new plantations or beds. These are taken off the parent plants early in August, and either planted at once where they are to grow, or put out in nursery beds, or rows, to get well established for the next spring planting. When the parent plants have become degenerated, or partially, or wholly barren, we should avoid taking the runners from such, and choose only those which grow from the most fruitful ones. In order to be sure of the latter point it is only necessary to mark the best bearing plants by small sticks pushed into the bed by the side of each when the fruit is in perfection. Some varieties, as the Prolific Hautbois, the English wood, and the Large Early Scarlet, are not liable to this deterioration, and therefore it is not necessary to select the runners carefully; but others, as the Pine strawberries, and some of the Scarlets, are very liable to it, and if the runners are taken and planted promiscuously, the beds, so made, will be nearly barren.

The best soil for the strawberry is a deep, rich loam. Deep it must be, if large berries and plentiful crops are desired; and the wisest course, therefore, where the soil is naturally thin, lies in trenching and manuring the plot of ground thoroughly, before putting out the plants. But even if this is not necessary it should be dug deeply, and well enriched with strong manure beforehand.

The best exposure for strawberries is an open one, fully exposed to the sun and light.

Culture in rows.—The finest strawberries are always obtained when the plants are kept in *rows*, at such a distance apart as to give sufficient space for the roots, and abundance of light and air for the leaves.

In planting a plot of strawberries in rows, the rows should be two feet apart, and the plants, of the large growing kinds, two feet from each other in the rows; of the smaller growing kinds, from one foot to eighteen inches is sufficient. The runners must be kept down by cutting them off at least three

* Excepting the *Bush* Alpines, which have no runners, and are propagated by division of the roots.

times a year, and the ground must be maintained in good order by constant dressing. During the first year a row of any small vegetables may be sown in the spaces between the rows. Every autumn, if the plants are not luxuriant, a light coat of manure should be dug in between the rows; but if they are very thrifty it must be omitted, as it would cause them to run too much to leaf.

A light top-dressing of leaves, or any good compost, applied late in the fall, though not necessary, greatly promotes the vigor of the plant, and secures the more tender kinds against the effects of an unusually cold winter. Before the fruit ripens, the ground between the rows should be covered with straw, or light new-mown grass, to keep it clean.

A plantation of this kind in rows, will be found to bear the largest and finest fruit, which, being so fully exposed to the sun, will always be sweeter and higher flavoured than that grown in crowded beds. A plantation in rows is generally in full perfection the third year, and must always be renewed after the fourth year.

Culture in alternate strips.—A still more easy and economical mode is that of growing the strawberry in alternate strips.

Early in April, or in August, being provided with a good stock of strong young plants, select a suitable piece of good deep soil. Dig in a heavy coat of stable manure, pulverizing well and raking the top soil. Strike out the rows three feet apart, with a line. The plants should now be planted along each line about a foot apart in the row. They will soon send out runners, and these runners should be allowed to take possession of every alternate strip of three feet—the other strip being kept bare by continually destroying all runners upon it, the whole patch being kept free of all weeds. The occupied strip or bed of runners will now give a heavy crop of strawberries, and the open strip of three feet will serve as an alley from which to gather the fruit. After the crop is over, dig and prepare this alley or strip for the occupancy of the new runners for the next season's crop. The runners from the old strip will now speedily cover the new space allotted to them, and will perhaps require a partial thinning out to have them evenly distributed. As soon as this is the case, say about the middle of August, dig under the whole of the old plants with a light coat of manure. The surface may be then sown with turnips or spinnage, which will come off before the next season of fruits.

In this way the strips or beds, occupied by the plants, are reversed every season, and the same plot of ground may thus be continued in a productive state for many years.

Both of the above modes are so superior to the common one of growing them more closely in *beds*, that we shall not give any directions respecting the latter.

It may be remarked that the Alpine and European Wood strawberries will do well, and bear longer in a rather shaded situation. The Bush-Alpine, an excellent sort, having no runners, makes one of the neatest *borders* for quarters or beds in the kitchen garden, and produces considerable fruit till the season of late frosts. If the May crop of blossoms is taken off, they will give an abundant crop in September, and they are, therefore, very desirable in all gardens.

To accelerate the ripening of early kinds in the open garden, it is only necessary to plant rows or beds on the south side of a wall or tight fence. A still simpler mode, by which their maturity may be hastened ten days, is that of throwing up a ridge of soil three feet high, running east and west, and planting it in rows on the south side. The north side may also be planted with later sorts, which will be somewhat retarded in ripening. The best early sorts for this purpose are Duke of Kent, and Large Early Scarlet.

Varieties.—The varieties of this fruit are very numerous, indeed quite unnecessarily so for all useful purposes. They have chiefly been originated abroad within the last thirty years. The different species from which the varieties have been raised, have given a character to certain classes of strawberries, pretty distinctly marked. Thus, from our own Wild Strawberry, or Virginia Scarlet, as it is called abroad, have originated the Scarlet Strawberries; from the Pine or Surinam Strawberry has been raised the class called Pines. From the common Wood Strawberry of Europe, another class, comprising the Woods and Alpines. Beside, there are the Hautbois, from a sort, a native of Bohemia, the Chili Strawberries, from South America, the Green Strawberries, and the Black Strawberries.

Of these the Pines and the Scarlets are the largest and highest flavoured. The Wood and Alpine Strawberries are valuable for bearing a long time, and parting freely from the hull or stalk, in picking.—*Downing's Fruits and Fruit Trees.*

More than 35,000 tons of coal were brought down on the Philadelphia and Reading railroad during one week in last month, and the amount of transportation is increasing.

Insects Injurious to Fruit.

Among the difficulties which the fruit grower has to encounter, none are perhaps more annoying or more completely beyond his power to remedy, than the hosts of insects which seem ever ready to prey both upon his trees and his fruit. The following remarks are taken from the *Farmer and Mechanic*, and were made in the Farmers' Club at the American Institute, N Y., on the 14th ult. We would invite, and indeed urge all to close observation, when they come in contact with these pests: but more particularly is it the province of the amateur to watch and report the result of his investigations.—Ed.

Jonathan L. Hyde in the chair.

Chairman—The subject for discussion at this extra meeting, is exclusively, "Insects injurious to Vegetation."

Samuel Allen—An old friend called my attention to his garden in this city. He was mourning over the devastation of his plants by insects. His raspberries, currants, gooseberries, had their leaves full of insects, curling up their leaves around the fruit. Bunches of grapes fallen off from the bite of insects. His vines of squashes, &c., also bitten off. His gardener was busy collecting bugs in a bowl to destroy them. I remark the ravages of insects wherever I go. The prospect is alarming! There seems to be an insect peculiar to each fruit or plant.

This subject of insects opens a wide field, and it is one of immense importance. I present here for your examination, branches of quince and pear trees, showing the destruction caused by the sting of some insect a few feet below the outward ends of the branches. You perceive that the wood is turned black and hard like ebony or black walnut. I also present some quinces nearly covered with an orange coloured moss or excrescence, the interior of the quince, as you see, full of worms. I caused my quince trees to be whitewashed, body and limbs, and now I have not one-tenth of this mischief that I had before, and a neighbour who did not whitewash his quinces, suffers now as I have heretofore.

Col. Skinner—Does whitewashing injure trees?

Dr. Underhill—No Sir. Lime is used to destroy snails, which are very troublesome in England, and sometimes here in very damp weather, in low grounds. A few years since they came on my quince trees, I sifted lime over them and the snails were all dissolved by the lime, or nearly so. This has been a wet season, but I have no more snails. The blight in fruit trees has been ascribed to other causes than insects. But I am decidedly of opinion that blight in pear trees is due to insects. This blight has been talked of these twenty years, and until very recently, without any suspicion that it was caused by insects. The plum tree is affected, especially the Damascene plum. I observe some limbs are killed, similar to the pear and quince. We have long suffered from a class of insects that sting the apple, pear, and cherry, and destroying much of the fruit at an early period of their growth. We have an insect among us which has been named the *East Wind*, for ten years past, supposed to have curled up the peach leaf and cause it to drop; but a new leaf succeeds. I have this year examined the diseased peach leaf with a glass, and I found that these leaves all had in them great numbers of insects. The nits may have been deposited here by beetles, which were exceedingly numerous at the time the disease appeared. At evening the air about the orchard was darkened by the immense number of these beetles on the wing. The oak leaf is also attacked by them. All this is not the East Wind. Formerly some few leaves used to be attacked, now scarce a leaf escapes. This is working an evil in our fruit trees, for although they have new leaves, yet are they enfeebled by it, and the fruit loses its good character. The damage to the peach is not all owing to the worm at its root. And our noble pippin is now assailed by a similar insect, its leaves are all stung. Proper investigation of this subject may lead us to very valuable results. Vineyards suffer least from insects. When caterpillars attack small vines in your yards and eat off the clusters, the best way is to have a sponge on the end of a pole, dipped in spirits of turpentine, the least touch of which makes the caterpillar fall. My vineyard has not suffered from them.

The injury to the leaves of the pear trees from the sting of insects, appears to be commencing. I have succeeded in destroying rose-bugs in my vineyard, by ploughing late in the fall, in cold weather, thus turning out the larva to be killed by cold.

Evening is the time for insect jubilees. Nineteen-twentieths of the beetle tribe and many other insects commit their depredations then. In ancient times fires were made on the high lands north of Egypt, to destroy the armies of locusts. This being supposed a foolish practice, was discontinued, and Egypt again suffered the loss of her crops. Fires made in evening have a happy effect; insects rush into it, drawn by the light. I know a man whose pippin orchard was almost destroyed for two years by canker worms; he made evening fires in the orchard, which destroyed the millers which produced the worm, and then had good fruit.

I suggest the making of fires, with proper care, in orchards, as soon as insects appear, in evenings. And I add, plough the ground well, late in fall in cold weather: it will turn out millions of larvæ to perish by cold. Some say turn in hogs—that has done well; they eat up the fallen fruit and insects in them. There is a prodigious increase this year of the insect which stings the leaves of the apple, very similar to the peach. Apple trees should be well scraped in winter; millions of eggs and larvæ under the rough bark will be killed by it. Leave caterpillars undisturbed and each produces a miller or butterfly to lay more eggs. The nests of these caterpillars are easily destroyed, and by so doing you confer a blessing on all your neighbours as well as on yourself. When I see a man sitting down, looking in despair at the worm nests in his trees, I feel as if I should be glad to give him a galvanic shock to arouse him to his duty to his neighbour and himself. He might just as properly sit still and see his neighbours' cattle, or his own, breaking into his corn-field, without making an effort to turn them out. Last year I destroyed some twenty thousand of these worms'-nests in my orchards. In my neighbourhood are wild cherry trees, which are full of these nests, so that when I get a new supply on my place, I owe it to this neighbour as well as to negligent farmers.

All our Agricultural Societies and Clubs ought to take up this insect question. There is a curious excrescence on our wild sweet brier, made by some insect lodged within. The English White Hawthorn is attacked; here is a branch with the young haws upon it, ruined, you see, probably by the same insect which stings the quince tree. I believe that I have discovered the larvæ of this insect, but am not yet positive of it.

Mr. Meigs—Some plants are not liable to the attacks of insects—the Ailanthus seems to be one, and a very singular fact is stated relative to the Lycopersicum—*the Tomato*—that when legions of locusts devour all plants, poisonous and all—night shade, crows' foot, &c., there has always been one solitary exception, and that is tomato. This fact was especially noticed in Estremadura in Spain. I venture to hint that such plants as are avoided by the insects might possibly be planted around pieces of ground, and afford protection to others. I say this, because in seeking for an unknown result, it is safe to try theories or conjectures.

Col. Skinner—You are aware of the importance of the article turpentine, a product of our South, and perhaps also of the fact that the long-leafed pine which produces it, is disappearing. That it seems like the Aborigines to dislike civilized neighbours. It is disappearing, leaving no young growth to supply its place. And this is also attributed to an insect working at its root. Great numbers of noble pines of three feet in diameter and one hundred and fifty high, stand, some of them stretching their naked arms abroad, others prostrate on the ground, and no successors of their kind.

Man meets with vast power in insect life. What ravages are those of the little ant. In some countries it is probable that no written document or records can long escape their ravages. They devour all. Whole forests have been killed by beetles! In some forests of South Carolina ninety trees out of one hundred have been killed by a small, black winged bug!

The amiable and intelligent ornithologist, Wilson, justly complains of the destruction of birds, more particularly of the woodpeckers, red-headed and ivory-billed, whose services in destroying insects are of such great importance.

Chairman—Between Charleston and Augusta, some few years ago, I noticed a very fair growth of young long-leafed pines.

Dr. Underhill—I must again urge the exceeding usefulness of birds in destroying noxious insects. A *cat-bird* will destroy for herself and her young, hundreds in a day.

In Carolina, it is true, they are compelled to frighten away the rice birds from their rice plantations.

Our crows must be preserved. On my place I have a rookery of many thousands; there are many of them in my orchard all winter. In summer they follow my ploughs all day long, feasting on grubs and worms and beetles. I save one hundred dollars for every one that I lose by my crows. Young corn is easily protected from them. I stretch cotton twine around and across my fields, and the crows never put foot in them; they suspect a trap! During very snowy winters, when deprived of food, they trim my cedar trees beautifully. They nip off with perfect regularity three or four inches of the tender extremities of the branches in their efforts to get the cedar-berry, leaving the form of the tree very handsome, and the trees all grow the better for their pruning! If I had the power, not a solitary crow should ever be killed.

Samuel Allen—The observations of Dr. Underhill are of great importance to our farmers, in reference to the ravages of insects. Some time since in Ohio I stopped to inquire into the cause of the destruction of a neighbouring forest. I was told that

an army of worms or insects which travelled on the ground from tree to tree had done it.

Dr. Field—My orchards are affected in the same way as Dr. Underhill's. No allusion has been made to the mode of destroying insects on trees by syringes. Great service can be done that way, even by pure water; but I advise the use of a decoction of tobacco or of soot mixed with sufficient molasses to make it adhere to the leaves. Dr. Underhill's mode of scraping off rough bark is good. I have examined the rough bark and found immense numbers of larvæ of insects in it. If we had as proper an antipathy to them as we have to snakes, we should soon destroy them.

Judge Van Wyck—The insects and their larvæ are many of them so minute and their form so changing, that it is hardly possible to exterminate them. We can only lessen their numbers. I examined some apple trees in Jersey lately, and found the leaves curled up, and on opening them, out flew small flies of slender forms like wasps. I do not know whether this is a new enemy of the apple. After heavy dew or rain sprinkle lime, fresh slaked, in moderate quantity, not enough to burn grain, and the insects in it will be destroyed or driven away. It has been effectually tried on strips of grain, some limed, others next to them not. The limed parts all free of insects, the others nearly destroyed by them. This is one of the many valuable properties of lime which seems to have been placed everywhere by the Deity for good purposes. It is the alkali of the lime which does this service. Where lime is not at hand, ashes will do nearly as well, owing to its alkali. Potashes also good. Scouring trees well is an excellent practice.

Dr. Field—We need accurate information, and I move the adoption of the following resolution:

Resolved—That the members of this Club, and farmers and gardeners generally, be requested to collect, preserve, and send to the American Institute, specimens of such insects as are destructive to vegetables, and such remarks in relation to them as they think proper. And also that the Institute be requested to offer a liberal premium for the best preparation of Entomology, for the benefit of the Club.

Carried unanimously.

Mr. Abraham Wakeman—Twine drawn around and across a corn-field is almost a sure preventive of attacks from crows and crow blackbirds, the latter partaking of the sagacity of the crow. But thus the insect tribes have a feast. Farmers have long tried to kill the insects in corn by dropping alkalies at the roots, and this also increases the crop of corn. On examination you will find some stalks of corn, when about three feet high, having in them at a little distance from the root, a wire worm, which destroys the inside of the stalk. The law of Connecticut, giving a *black bounty* of ten cents per head for killing crows, has caused men to visit the rookeries of these useful birds, with their muskets, and kill hundreds of them. Man kills the birds, and the noxious insects then multiply their destructive forces. In the northern and some other countries, you will find numerous large dead pines which are said to be victims of insects at the root; no young pines growing in their places.

Chairman—You will hardly ever find young pines taking the places of the old ones.

H. Meigs, *Secretary.*

Steeping Seeds.

It appears almost incredible, that the mere steeping of seeds should have any prolonged effect on the plant itself, yet the evidence is so strong, if evidence can be given to the proceedings of public institutions, that it were idle to dispute the fact; nevertheless, evidence of experiments should be received with caution. That a good deal more has been attributed to steeping than ought to have been, is certain, and that many whimsical nostrums have been put in requisition, is also obvious. The best authenticated is, perhaps, the effect caused by steeping in muriate of ammonia; and we think that as the fertilizing effects of so small a quantity as half an ounce in a gallon of water—and that used only once in six waterings—are proved, it is not too much to suppose that the steeping of a seed which would imbibe a considerable portion, may assist the future vegetation.—*Horticultural Magazine.*

The English, though sometimes said to be less practical in their philosophy than the French, are yet generally most remarkable for the stupendousness of their schemes. When Brunnel undertook to make a road way under the Thames, it was thought the ultimatum of bold and visionary projects. A far more gigantic one still, has however been broached in Paris—being no less than a cast iron tunnel beneath the sea, to pass from Calais to Dover, a distance of more than twenty miles. Such an undertaking appears at first view, foolishly bold and visionary; and perhaps it is really so: but when we look at the vast achievements of the last quarter of a century, where money, skill and determined enterprise have operated together, we would *feel cautious in declaring it was impossible.*

For the Farmers' Cabinet.

Report of Crops raised by James Gowen in 1845.

Ten acres of corn in a field divided into two plats by an under drain, terminating in an open ditch, on one side of which was laid off seven acres, and on the other side three acres for corn—intermediate land including drain and ditch, reserved for ruta baga. In the seven acre plat there were 158 rows, three and a half feet apart, running north and south. In the three-acre plat, 67 rows, three and a half feet apart, running east and west, planted in drills or rows, first week in May. The field had been in grass since 1839—had no manure since, until broken up for corn, when one ton of guano at $40, was applied. Before husking the whole, a number of rows were taken while the corn was yet standing, in different sections, comprising a fair sample, to furnish a proper average. The rows designated were husked and measured under the supervision of disinterested persons. The 158 rows in large plat, averaged eight and a quarter bushels. The 67 rows in small plat, nine bushels, measured according to usage, so as every two bushels of ears should be equal to one bushel of shelled corn—the whole making 1,906½ bushels of ears, equal to 953 bushels of shelled corn, averaging 95 bushels shelled corn to the acre. The seed was dropped twelve inches apart continuously in the drill, was of course worked but one way, and though an old grass field, I might challenge the whole country for a piece of corn land so free from grass and weeds; and this condition was by no means owing to extra work while the crop was growing, but mainly to judicious harrowing while preparing the land for the seed. Prevention is far better than cure.

In consequence of the Resolution of the Society debarring those who had been awarded premiums in two previous years, from competing with similar crops the succeeding year, I resolved never again to present any crop of my raising for a premium; but having by way of encouragement, promised the premium to one of my men, should the crop of corn be entitled to one, I now submit it on his account.

I take occasion however to state, that I had about seven acres of winter wheat; six of Italian White, and one acre of a peculiar Red, besides one acre of spring wheat—the average of the whole computed at over 40 bushels to the acre. It is worthy of note, that the ground sown with spring wheat yielded the year previous over 900 bushels of carrots. The wheat was sown last spring without any manure, the condition of the land after the carrots, being considered sufficient to sustain the wheat. After the wheat was reaped it was sown to turnips under a light dressing of scrapings of yard, with about eight bushels of lime—the yield was over 1000 bushels. This will show, in some degree, what land is capable of producing under proper culture.

Here are 900 bushels of carrots at 40 cents per bushel,	$360 00
40 bushels Spring wheat, at $1	40 00
1000 bushels turnips, at 12½ cts.	125 00
	$525 00

in two seasons, from one acre of land.

I had also eight acres of rye, average yield, 38 bushels to the acre. The carrot crop exceeded in quantity all former crops raised by me—the yield being over 1000 bushels to the acre. Sugar parsnip, 800 bushels, and ruta-baga over 600 bushels to the acre. Of potatoes, I had in three acres, the yield, over 200 bushels of choice potatoes to the acre.

I do not submit these crops for premium, for the reasons already stated; but should the corn be deemed worthy of distinction, you will please award the premium to Solomon Unruh, the individual to whom I promised it.

Respectfully,

James Gowen.

Mount Airy, March 18th, 1846.

To the Committee on Crops, of Philadelphia Agricultural Society.

N. B. It would be proper, perhaps, to state, that the above Report does not include all that was raised on the farm in 1845—in addition, I housed upwards of 100 tons of excellent hay, notwithstanding the season was not favourable to the grass crop. This will be considered doing pretty well, on an upland farm of some 100 acres, while maintaining during the summer over fifty head of cattle. J. G.

Dr. Brinckle's Strawberries—New Varieties.

To the Editor of the Farmers' Cabinet:—

My Dear Sir,—In compliance with my promise, I now send you a report of some of my horticultural experiments, with a description and the parentage of a number of the new varieties of strawberries I have originated.

In the formation of new fruit of excellence, the most certain mode of proceeding

is by artificial impregnation. By embracing the opportunity thus afforded, of selecting a fine paternal parent, the probability that the offspring will possess superior merit, is greatly increased. But where the whole operation is left to chance, the progeny may have an indifferent or worthless father, and consequently may inherit some of his bad qualities. To insure success and certainty, however, in the artificial process, much caution is required.

Early in the morning select a blossom bud that is about to expand, separate the petals and destroy the male organs if they are present, by extracting every anther with the point of a penknife. The blossom is then to be enveloped in gauze, and tied securely so as to prevent the wind or insects from conveying pollen to the pistils. At mid-day or later, examine the blossoms of the kind with which you wish to cross it. If the anthers of this kind are found covered with a yellow powder which can be rubbed off on applying the finger, then the evidence is conclusive that the pollen is mature and fit for fecundating purposes. With your penknife extract one or more of these anthers, and take them to the blossom which had been covered with the gauze; removing the gauze, place the anthers on the pistils, and reapply the covering. If, in two or three days the petals do not drop off, or cannot readily be detached, fecundation has not taken place. But if the process has been successfully accomplished, the petals being no longer of use drop off, and the gauze may then be removed. So far every source of error is avoided; and there can be no doubt as to the parentage of the new plants so formed. If, however, you apply pollen to a blossom that has already expanded, there is no certainty in your operation, because the wind or insects may have anticipated you. Nor is the use of a brush or camel's hair pencil altogether free from objection, since it may retain pollen used in a previous experiment.

Before closing these preliminary observations on artificial impregnation, I will add, that in relation to strawberries, with a single exception, the females of the various classes of Scarlet, Black, Pine, Hautbois, and Wood, and Alpine, may be readily crossed by any male of these several classes. This single exception is the female Hautbois; it can only be impregnated by a male Hautbois; while a male Hautbois will impregnate the female of any kind.

Having premised these remarks, I now proceed to describe some of the new varieties of strawberries I have formed. A single plant of a number of these kinds was obtained by Mr. Edwin Middleton, of Darby, and many of them fruited with him; the result he has kindly reported to me.

No. 23, A., was produced from a seed of a berry of Hovey's Seedling crossed with Keens' Seedling. The seed was planted as soon as the berry was ripe, June 17th, 1843. The new plant thus formed, fruited for the first time in 1845; flower small, and without anthers; leaf large, with serratures somewhat acute, and hairy leaf stem; fruit of medium size, round, scarlet; brown seed, in deep indentations, with ridged intervals. With Mr. Middleton this plant proved a great bearer, and bore its fruit on an elevated fruit stalk.

No. 23, B.—*The Abyssinian Prince*—was produced from another seed of the same berry as the preceding kind, and was planted on the same day, June 17th, 1843; fruited in 1845, for the first time; flower small and without anthers; leaf very large and roundish, with curvilinear serratures; leaf stem smooth; fruit good size, ovate, highly glazed, of a very dark crimson colour, almost black, seed not so dark, and inserted in bold indentations; flavour very fine; flesh red throughout. Mr. Middleton exhibited a plant of this kind at one of the meetings of our Horticultural Society this summer, with upwards of sixty very large and magnificent berries on it.

From other seed of the same berry that produced 23, A., and 23, B., also originated 23, C., 23, D., and 23, E.; these had perfect male organs, but as they were shy bearers and inferior to the two first, a description of them need not be given.

No. 24, A., produced from a seed of a berry of Hovey's seedling, crossed with a very vigorous male plant that grew in a bed of Hovey's seedling; planted June 17th, 1843; fruited in 1845; flower rather large, with perfect anthers; leaf large; leaf stem hairy; fruit large, roundish, ovate, crimson, glazed; light seed. Like most kinds with perfect male organs, a shy bearer.

No. 24, B.,—*Lizzie Randolph*—so named in honour of the accomplished daughter of Dr. J. Randolph, of this city, produced from another seed of the same berry as the preceding, and planted on the same day; fruited in 1845; flower small, and without anthers; large leaf, with obtuse serratures; leaf stem smooth; fruit large, roundish ovate, scarlet, with brown seed in deep indentations; some of the berries ribbed. With Mr. Middleton this kind proved to be very large, very fine, and very productive; one plant having borne fifty-one berries.

No. 28, C.,—*Mary*—so named after one of my little daughters—produced from a

seed of a berry of Hovey's seedling crossed with Keens' seedling, and planted June 20th, 1843; fruited in 1846; flower of medium size, and without anthers; leaf of medium size, narrow, with rather acute serratures, and hairy leaf stem; fruit rather large, conical, bright scarlet; seed in deep indentations, with ridged intervals; fruit in beautiful clusters, on a high fruit stalk.

Nos. 28, A., and 28, B., were from two other seeds of the same berry, and planted on the same day. The former had no anthers, and the fruit was of medium size; in the latter the anthers were perfect, with defective female organs.

No. 29, A., produced by a seed of a berry of spurious Southborough* seedling crossed with the Elton, and planted June 20th, 1843; fruited in 1845; flower small and destitute of anthers; leaf small, and bears some resemblance to that of the male parent; leaf stem hairy; fruit above medium size, cordate, light crimson, and a very abundant bearer; but the fruit lies on or near the ground, close to the plant. Five plants growing in a box seven by ten inches, bore 142 berries.

Nos. 29, B.,—29, C.,—29, D.,—and 29, E., were produced from four other seeds of the same berry. The first had anthers, but was sterile, from imperfection of the female organs; the other three were without anthers, and very productive; fruit of medium size.

No. 35, A., was produced by a seed of a berry of Methven Scarlet crossed with the White Wood, and planted June 21st, 1843; fruited in 1845; flower small, and without anthers; leaf circular, dark green, and somewhat cupped; fruit above medium size, roundish depressed, pale scarlet, with brown seed in superficial indentations. Mr. Middleton reports of this kind, "fruit round, good size, elevated, good bearer."

No. 35, B., was produced from another seed of the same berry; anthers perfect, but a very shy bearer.

No. 40, C.—*The President*,—has already been described in a previous number of the Cabinet.† The fruit with me this season was ovate and very fine.

No. 40, G.—*Emily*—so named after one of my daughters, was produced from another seed of the same berry, planted on the same day; fruited in 1845; flower medium, and without anthers; fruit rather large, ovate, bright scarlet, glazed; with Mr. Middleton large and productive.

No. 41, B., produced by a seed of a berry of Hovey's seedling crossed with a wild male strawberry, which came attached to the root of a Balm of Gilead, from the State of Maine, planted June 24th, 1843; fruited in 1845; flower medium, and without anthers. With me, the fruit was of medium size, roundish conical, scarlet, with brown seed. Mr. Middleton says of this kind, "large splendid fruit, on a strong fruit stalk, and an immense bearer."

Three or four other plants originated from seed of the same berry; they all had anthers, but were sterile, in consequence of defective pistillate organization.

No. 50, B.—*Buist*—so named after the well known florist and nurseryman of this city, produced from a seed of Bishop's Orange crossed with Keens' seedling, and planted June 28th, 1843; fruited in 1845; flower small, and without anthers; leaf very large; leaf stem hairy; fruit large, roundish ovate, crimson; seed inserted in deep depressions; fine rich flavour.

No. 54, E., produced from a seed of a berry of Bishop's Orange crossed with the Elton, planted June 28th, 1843; fruited in 1845; flower of medium size, with a few small imperfect anthers destitute of pollen; fruit of good size, roundish ovate, highly varnished, dark crimson, nearly as dark as the Abyssinian Prince; seed inserted in bold depressions, flesh very red, with a fine flavour.

No. 58, B.—*Hancock*—so named after the distinguished and enterprising nurseryman of Burlington, N. J., produced from a seed of a berry of Hovey's seedling crossed with the White Wood, and planted June 28th, 1843; fruited in 1846; flower large; anthers perfect; leaf large, with obtuse serratures, and hairy leaf stem; fruit large, roundish ovate, crimson, highly glazed.

No. 62, A.—*Fanny*—so named after my youngest daughter, produced from a seed of a berry of the Methven Scarlet crossed with the Elton, and planted June 28th, 1843; fruited in 1845; flower small, without anthers; leaf resembles the Elton; fruit roundish and of good size. In open culture, this is a very hardy vigorous kind, and very productive. It was grown by Mr. Middleton nearly five inches in circumference.

No. 62, B.—*Clara Victoria*—from another seed of the same berry, has already been described in a previous number of the Cabinet.* With me this season, the fruit was ovate, and very fine.

---

* This maternal parent was sent to me for Southborough seedling, but was not true to name. The genuine Southborough has large fruit, this had not; the Southborough has anthers, this had none.

† See page 121, last volume.

* Page 121, last volume.

No. 72, A., produced from a seed of a berry of Keens' seedling crossed with the Red Alpine, and planted July 3rd, 1843; fruited in 1845; flower large; sexual organization perfect; leaf large and drooping; leaf stem smooth; fruit borne on high fruit stalk, very large, round, deep crimson, and fine flavour. I know of no large fruited strawberry, with perfect anthers, that will bear a full crop, except 72, A., and its offspring the Cushing; but unfortunately the former is too tender for open culture.

No. 72, B., from another seed of the same berry, has not yet fruited; it has in its foliage a strong resemblance to the father, while 72, A., resembles the mother.

No. 91, produced from a seed of a berry of the White Bush Alpine, crossed with Swainstone seedling, planted December 8th, 1843; fruited in 1846; flower small, with perfect anthers; fruit medium, conical, pale scarlet. It did not inherit the bush and everbearing properties of the mother, nor the fine fruit of the father.

Nos. 119, A., and 119, B., were produced by two seeds of a berry of the true Southborough seedling crossed with the Conical Hautbois. The leaf of both partook strongly of the Hautbois character; and though the flower appeared to have both organs perfectly developed, not a single fruit was formed. They appeared to be mules.

No. 123, A.—*Adriana*, so named after one of my daughters—produced from a seed of a large berry of Hovey's seedling, grown in the garden of Joshua Longstreth, Esq., planted May 30th, 1844; fruited in 1846; flower above medium, and without anthers; fruit large, conical, bright scarlet; seed in deep indentations, with ridged intervals; leaf medium; serratures obtuse; hairy leaf stem.

No. 123, D.—*Caleb Cope*, so named in honour of the President of the Pennsylvania Horticultural Society—produced from another seed of the same berry, and planted on the same day; fruited in 1846; flower above medium, with perfect anthers; leaf rather small, with serratures somewhat acute, hairy leaf stem, fruit in clusters, on a high fruit stalk, rather large, conical, hairy, deep crimson, highly glazed, and of beautiful appearance; seed placed in slight depressions; flavour very fine and peculiar. On first tasting the fruit, I was forcibly impressed with this peculiarity of flavour:—could it be fancy? I tried another berry; still the same flavour was perceptible: on the following day I tried it again, with the same result. This peculiarity of flavour bears a faint but very perceptible resemblance to that of the Muscat grape of Alexandria. Another valuable quality possessed by this kind is, that when ripe, it remains long on the plant in a state of perfection. The fruit is solid, with red flesh.

No. 136, produced from a seed of a berry of Swainstone seedling crossed with the Conical Hautbois, planted June 3rd, 1844. This plant has not yet fruited. Some of my horticultural friends entertain the opinion that the Hautbois strawberry will not amalgamate with any other kind. A glance at No. 136, will satisfy them of the incorrectness of this opinion; for the structure of the leaf is essentially that of the Hautbois, from which it differs only in not being pointed.

No. 145, E., produced by a seed of a berry of Buist's prize strawberry crossed with the Old Pine, planted June 8th, 1844. It fruited in 1846; flower large, with perfect anthers; fruit above medium, pyramidal, dull scarlet, with chocolate coloured seed set on a smooth surface, without indentations; flavour fine; leaf rather large, with obtuse serratures, and hairy leaf stem.

No. 147, B.—*Middleton*—so named after Mr. Edwin Middleton, of Darby, one of our most skilful fruit cultivators—produced from a seed of a berry of Methven Scarlet, without anthers, grown near Cox's Hybrid, Old Pine, Downton, and Southborough seedling, planted June 8th, 1844; fruited in 1846; flower very large, with perfect anthers; leaf medium, rather narrow, with obtuse serratures, and hairy leaf stem; fruit large, roundish, crimson.

No. 198, E.—*Cushing*, so named as a compliment to J. P. Cushing, Esq., of Boston, to whom I am under a thousand obligations—produced from a seed of a berry of No. 72, A., the anthers not having been extracted; planted May 31st, 1845; fruited in 1846, one year from the seed; flower large, with perfect anthers; leaf large and roundish, like that of Keens' Seedling and Ross's Phoenix; differing, however, from these two varieties, in having a hairy leaf stem; fruit very large, round, some of the berries with a short neck, light scarlet colour; seed inserted in slight depressions; fine flavour, and very productive, This plant was exhibited at one of the meetings of the Pennsylvania Horticultural Society this summer, with 26 fine berries on it, several of them four and a quarter inches in circumference. Not long since, Mr. Longworth, of Cincinnati, offered one hundred dollars for a strawberry with perfect anthers that will bear a full crop of fruit as large as Hovey's Seedling. Such a strawberry is, I think, the Cushing.

No. 201, D.—produced by a seed of a berry of Longworth's Iowa, anthers not extracted, and grown among a hybrid—Meth-

ven Scarlet, crossed with Hautbois. The seed was planted June 4th, 1845; fruited in 1846; flower medium, with perfect anthers; fruit rather large, roundish, with a large thick neck, occupying nearly half of the berry, deep crimson, with crimson seed. The fruit begins to turn red on the lower part of the neck, while the seeds are green. Leaf rather large, with obtuse serratures and hairy leaf stem.

No. 201, E., produced by another seed of the same berry, planted on the same day; fruited in 1846; flower rather large, with perfect anthers; fruit quite large, roundish depressed, bright crimson, with brown seed in deep indentations; leaf large, with obtuse serratures, and hairy leaf stem.

No. 216, B., produced by a seed of a large berry of spurious British Queen, no anthers; grown near the Percival and Keens' Seedling; the seed was planted June 9th, 1845; fruited in 1846; flower medium, and without anthers; fruit large, conical, scarlet, with brown seed; leaf large, narrow, with smooth leaf stem.

No. 226, E., produced by a seed of a berry of the President; anthers not having been extracted; planted June 12th, 1845; fruited in 1846; flower medium, with perfect anthers; fruit above medium, long ovate, with a neck, crimson, glazed, flavour luscious; leaf small, leaf stem hairy.

No. 226, G.—*Wm. Henry*, so named after one of my sons—produced by another seed of the same berry, and planted on the same day; fruited in 1846; flower above medium, with a few perfect anthers; fruit rich looking, glazed, large, cordate, crimson, with light seed, and fine flavour; leaf medium, serratures not deep; hairy leaf stem.

No. 229, B.,—*Virginia*, so named after one of my daughters—produced from a seed of a berry of Lizzie Randolph crossed with Myatt's Eliza, and planted June 13th, 1845; fruited in 1846; flower medium, with a few small, pale, defective anthers; fruit of beautiful appearance, large, roundish, conical, ribbed, crimson; leaf medium; hairy leaf stem.

No. 235, R., produced by a seed of a berry of the President, anthers not having been extracted; planted June 14th, 1845; blossomed April 15th, 1846; the plant at the time being exceedingly small; flower medium with perfect anthers; fruit highly varnished, large, roundish, some cockscomb form, crimson; seed inserted in slight depressions; flavour fine; leaf large, roundish, with obtuse serratures; hairy leaf stem.

No. 244, B.—*Keyser*, so named in honour of the chairman of the fruit committee of the Pennsylvania Horticultural Society—produced by a seed of a berry of 53, D.,—Bishop's Orange crossed with conical Hautbois—without anthers. The seed was planted June 16th, 1845; fruited in 1846; flower above medium, without anthers; fruit large, ovate, with a neck, crimson; leaf medium, serratures obtuse, slightly hairy leaf stem.

It will be perceived that the last described nine varieties fruited in one year from the seed.

I had 254 kinds from seed planted last summer after strawberries were ripe. Of these 254 kinds 62 blossomed this summer. Of the 62 kinds that blossomed in one year from the seed, 43 fruited, and 19 were sterile from imperfection of the pistillate organization. Of the 43 that fruited, 30 had perfect anthers.

Very truly yours,

W. D. Brinckle.

Philadelphia, August 3rd, 1846.

Essex Agricultural Transactions.

DANIEL PUTNAM'S STATEMENT.

To the Committee on the Dairy:

Gentlemen,—I offer for your inspection, two boxes of September butter, containing 26 lbs., being a sample of 615 lbs., made between the 20th of May and the 20th of September, from the milk of eight cows, some of which have been nearly dry a part of the season, having calved last autumn. The milk of more than one cow, has been sold and used in the family, so that it would not be more than the average milk of six cows. Their feed has been a poor pasture, one quart of meal per day, with some mown grass or corn stalks.

Process of making the butter.—The milk is kept in tin pans. After standing from thirty-five to forty-eight hours, the cream is taken off and put into tin pails. We churn twice a week. When the butter milk is drawn from it, we thoroughly rinse it in cold water; it is then taken from the churn, worked in part, salted, an ounce of salt and one-fourth of an ounce of loaf sugar to the pound. In about twenty-four hours it is worked the second time.

Daniel Putnam.

North Danvers, Sept. 24th, 1845.

Wash your teeth at night, of course. Why sleep with minute decomposing particles in your mouth, affecting your teeth, your breath, and your health? Wash also after every meal, when convenient.

THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

PHILADELPHIA, EIGHTH MONTH, 1846.

With this number commences the eleventh volume of the Farmers' Cabinet. In entering upon it, it is natural to turn back, and look a little over the volume just closed. In doing so, the editor may be indulged in the expression of the belief, that he has given to his subscribers a volume which cannot fail to be abundantly more valuable to them than the price it has cost them. We are not prepared to say that the Farmers' Cabinet is the best agricultural paper in the world, or to boast of our tens of thousands of subscribers; but we are willing—and we acknowledge some degree of pride in the feeling—to place our little favourite along side of any of its cotemporaries, and so far as plain, matter of fact, substantial usefulness to those it is intended for, is concerned, let it speak for itself, and make its own quiet declarations. As to our list of subscribers, we think it is not half so large as we deserve, and we are sure it is not one quarter as full as we would like.

We enter upon a new year, disposed to do our best, and while we wish our subscribers multiplied, we also wish for them health, happiness, and agricultural success.

We omitted to state in our last number, when a list of premiums was published, that our Agricultural Society will hold its approaching Annual Exhibition at the *Rising Sun*, on the Germantown road, where it has been many times heretofore held. It may not be amiss to repeat, that the time is the 30th of next month, and the 1st of Tenth month. The ploughing match to be on the second day of the Exhibition.

James S. Lawrence, of New Egypt, Monmouth co., N. J., two or three years ago, informed us of his success in the preservation of apples. *He puts them down in dried oak saw-dust.* The editor of the Princeton Whig, was shown apples a few weeks since, preserved in this way, gathered in 1844 and 1845.

The *Horticulturist and Journal of Rural Art and Rural Taste*, edited by A. J. Downing, author of *Landscape Gardening*, *Designs for Cottage Residences*, *Fruits, and Fruit Trees of America*, &c., &c., has been received upon our table. It will be published monthly, by Luther Tucker, at Albany, in pamphlet form, at $3 per annum, and may also be obtained of G. B. Zeiber & Co., of this city.

It is the object of the editor to assist as far as possible, in giving additional impulse to the progress of horticulture, and the tasteful in rural life. His ability to do this, has been very well established by the works above named, which he has already published, and which are doing much to spread among all those interested in country pursuits, that kind of taste, the cultivation of which will be found materially to add, in almost every position of life, to its comforts.

The first number of Vol. 4, of the *American Quarterly Journal of Agriculture and Science*, is on our table. It is conducted by Dr. Emmons, A. Osborn, and O. C. Gardiner, and published by Huntingdon & Savage, New York, at $2 per annum. This number, like its predecessors, contains a large amount of valuable matter, and we wish the editors increasing success in their enterprise.

In the last number of the *Southern Cultivator*, published at Augusta, Ga.—an excellent paper, by the way, and one we have had frequent occasion to refer to,—we found a slip containing a proposal of our friend Mc Donald, of Eufaula, Alabama, that he would be one of a thousand who should each procure twenty subscribers, and thus place the Cultivator upon a pretty high horse. We were also requested to "call attention to this proposition;" but whether for the purpose of serving our own interests, or those of our Augusta friends, they do not explicitly state. We however take pleasure in assuring agriculturists of the South, whether 20,000 or twenty times that number, that after having subscribed for the Farmers' Cabinet, they can hardly appropriate another dollar better than by ordering the Cultivator; but let them be sure to supply themselves with the Cabinet first.

We regret to be obliged to state, that frequent mention is made in our exchange papers from Delaware, of the appearance this summer of the potatoe rot. Our friends in Jersey inform us, that it is much feared in some neighbourhoods on that side of the river. We also learn that it has made its appearance in our own immediate vicinity.

The corn crop, from present appearances, very generally promises well in this vicinity. This is also the report from more remote sections.

TREES FOR SALE.

The Subscriber has for sale at the Mount Laurel Nursery,—established by J. Needles—an extensive assortment of Apple, Pear, Peach, Plum, and Cherry Trees and Grape Vines. Also, a great variety of

ORNAMENTAL AND EVERGREEN TREES,

Which are of the best quality, and good size for transplanting. Orders left with Josiah Tatum, No. 50, N. Fourth street, will be punctually attended to, where catalogues may be procured.

EZRA STOKES.

Mount Laurel, near Moorestown, N. J.,
Eighth month 15th, 1846.

Persons wishing trees,—particularly Southern purchasers—are invited to notice the above advertisement. Orders sent to this office, will be promptly attended to, and every care taken to have them faithfully complied with. Catalogues will be forwarded by mail, as they may be requested.

The Pennsylvania Horticultural Society will hold its seventeenth Exhibition on the 16th, 17th, and 18th of next month, in the Philadelphia Museum, corner of Ninth and George streets, and will occupy the two grand saloons of that building, which will afford ample space for the most extensive display of objects in horticulture, &c.

Contributions from a distance may be transmitted by public conveyance, and the cost of transportation will be cheerfully defrayed by the Society. It is desirable that all articles should have a list accompanying them, and be in hand previously to the day of opening, that they may be appropriately arranged, and be in time for competition, as the premiums will be awarded on the first day. Every article will be returned to its contributor, or instructions left for its disposal prior to 12 o'clock, M., on the 19th.

Competition free to all persons. For list of premiums, see page 26.

The quantity of rain which fell in the 7th month, 1846, was a little more than four inches and a half.

4.60 inches.

Penn. Hospital, 8th mo. 1st.

☞ SHORT ADVERTISEMENTS,

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. Payment in advance.

Agricultural Implement & Seed Warehouse,

No. 194½ *Market Street, Philadelphia.*

For sale as above, Cultivators from $3 50 to $5 50 each; Cultivator Ploughs for working among corn, potatoes, roots of every kind, digging potatoes, &c., &c.; Horse Rakes; Centre-Draught Ploughs for 1, 2, 3 or 4 horses; Cutting Boxes in great variety; Corn Shellers; Grain Fans; Grain Cradles of the best make; Scythes, Snaths, Scythe stones, Rifles, Grass Hooks; improved Barrel Churns, Cheese presses, &c., &c. Garden and Flower Seeds of all kinds, for, sale at wholesale and retail, by D. O. PROUTY.

March 15—tf.

SEED STORE,

No. 23 Market Street, Philadelphia.

The subscriber keeps constantly a supply of White and Red Clover, and other grass seeds; fresh Perennial Rye-grass, and Lucerne seed. Field seeds, consisting of choice Spring Wheat, Barley, Potatoe Oats, Northern and other seed-corn. Aso, in season, Fruit and Shade Trees. Garden and Bird seeds generally. Guano in parcels to suit purchasers.

M. S. POWELL.

Philad., Feb., 1846. tf.

COATES' SEED STORE,

OF MORE THAN FORTY YEARS STANDING:

Just received the present year's crop of

TURNIP SEED,

Of the most approved varieties for cattle and table use,

WITH A COMPLETE ASSORTMENT OF

GRASS & GARDEN SEEDS,

Of the finest Quality and best Varieties,

JOS. P. H. COATES.

No. 49, *Market st., Philada.*

July 15th.

PHILADELPHIA

AGRICULTURAL WAREHOUSE,

No. 291 *Market Street, North side, between Seventh and Eighth Streets, Philadelphia.*

The subscriber has just received from Worcester, Massachusetts, an assortment of Ruggles, Nourse and Mason's improved Eagle, Subsoil and other Ploughs, which have been so much approved by the principal Agricultural Societies in New England the several last years; also Bennett's Cultivators and Stevens' Self-Feeding Hay and Straw Cutter, a late and very valuable improvement in that kind of implement; Grain Cradles, &c.; an assortment of Ruggles, Nourse and Mason's Self-Sharpening Ploughs of the form and model of those above named, are daily expected. T. F. has and will constantly keep a large assortment of Farming Implements, as Fan Mills, Straw and Hay Cutters, Corn Shellers, Grain Cradles, Scythes, &c., together with Garden Tools of all kinds.

THOMAS FURBER.

May 15th, 1846. 1 yr.

NEW

Horticultural and Agricultural Ware-house,

84 *Chesnut Street below Third, South side.*

The subscriber has for the better accommodation of his customers, opened the above ware-house, with a large stock of Garden and Field Seeds, crop of 1845. Implements and Books on Gardening and Farming; he calls the particular attention of farmers to his pure stock of Sweede Turnips, Field Carrots, Beets and Parsnips, Pruning Shears, Saws and Knives.

March 14th, 1846.—1y. R. BUIST.

COAL.

The subscriber has made an arrangement for a constant supply of superior Lehigh and Schuylkill Coal—carefully prepared for family use, which he will furnish *at the usual cash prices*, on application at the office of the Farmers' Cabinet, where samples of the different kinds and sizes may be seen.

JOSIAH TATUM.

Philadelphia, Eighth month 15th, 1846.

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$3 50
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
BRIDGEMAN'S GARDENER'S ASSISTANT;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	50
Complete sets of the FARMERS' CABINET, half-bound, 10 vols.	8 50
DOWNING'S Landscape Gardening,	3 50
Downing's Fruits and Fruit Trees of America,	1 50
SKINNER'S Every Man his own Farrier,	50
AMERICAN Poulterer's Companion,	1 25
BOUSSINGAULT'S RURAL ECONOMY,	1 50
FARMERS' & EMIGRANTS' HAND-BOOK,	1 00
MORRELL'S AMERICAN SHEPHERD,	1 00
STABLE ECONOMY,	1 00
BEVAN on the HONEY BEE,	31¼
BUISTS' ROSE MANUAL,	75
THOMAS' FRUIT CULTURIST,	50
SKINNER'S CATTLE & SHEEP DOTOR,	50
AMERICAN FARRIER,	50
THE FARMER'S MINE,	75
HOARE ON THE VINE,	62½
HANNAM'S Economy of Waste Manures,	25
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½

As well as his larger works on Chemistry and Agriculture.

Subscriptions received for Colman's Agricultural Tour—or single numbers sold.

☞ We are prepared to bind books to order.

GUANO.

Twenty-five tons first quality Ichaboe Guano, in bags or barrels, for sale in lots to suit purchasers, by

S. & J. J. ALLEN & CO.,
No. 7 South Wharves, 2nd Oil Store below Market street, Philadelphia.

October 15th, 1845. tf.

Poudrette.

A valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, North Fourth Street, or at the manufactory, near the Penitentiary on Coates' street. Present price, for seven barrels or more, $1 75 per barrel, containing four bushels each. Any number of barrels less than seven, $2 each, or thirty-five cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. The results on corn and wheat have been generally very satisfactory. Farmers to the south and in the interior, both of this State and of New Jersey, are invited to try it. It is found excellent for buckwheat and turnips. We are now able to supply the demand for wheat.

JOSIAH TATUM.

CONTENTS OF THIS NUMBER.

	Page
Premium Farm in New York,	9
Manures for Grape Vines and Fruit Trees,	13
Improvident Society,	14
Charring Vegetable refuse.—Indian meal cakes.—Iron a remedy for Blight in Pear Trees.	16
Culture of Roses.—Dr. Mease,	17
Preservation of Roofs,	18
Statistics for wheat-growers and millers,	19
Summer pruning fruit trees, and thinning fruit.—Consumption of corn-meal in the West Indies,	20
The Apple-tree,	21
Oat Fodder for Horses.—Wonders of Insects,	22
Peach Trees.—Potatoes,	23
White Doyenne, or St. Michael Pear.—The Field of Wheat,	24
Wild Ducks Tamed—Beavers.—Gum Arabic,	25
Premiums of Penn. Horticultural Society,	26
Culture of the Strawberry,	28
Insects injurious to Fruit,	30
Steeping Seeds.—Tunnel under the Sea,	32
J. Gowen's Report of Crops.—Dr. Brinckle's Strawberries,	33
Essex Agricultural Transactions,	37
Editorial Notices,	38

THE FARMERS' CABINET,

IS PUBLISHED MONTHLY BY

JOSIAH TATUM No. 50 NORTH FOURTH STREET, PHILADELPHIA.

It is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, when they can be appropriately introduced.

Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For seven dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the 11th volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage. To any Post office within thirty miles of Philadelphia, they will go free of charge.

Joseph Rakestraw, Printer.